

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

RECEIVED  
JAN - 9 2007  
CONNECTICUT  
SITING COUNCIL

APPLICATION OF CELLCO PARTNERSHIP :  
d/b/a VERIZON WIRELESS FOR A :  
CERTIFICATE OF ENVIRONMENTAL : DOCKET NO. 325  
COMPATIBILITY AND PUBLIC NEED FOR :  
THE CONSTRUCTION, MAINTENANCE :  
AND OPERATION OF A WIRELESS :  
TELECOMMUNICATIONS FACILITY AT :  
111 UPPER FISH ROCK ROAD IN :  
SOUTHBURY, CONNECTICUT : JANUARY 9, 2006

RESPONSES OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS TO  
CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES, SET ONE

On December 13, 2006, the Connecticut Siting Council ("Council") issued Pre-Hearing Interrogatories (Set One) to the applicant, Cellco Partnership d/b/a Verizon Wireless ("Cellco"), relating to the above-captioned Application. Below are Cellco's responses.

Question No. 1

What frequencies is Cellco licensed to use?

Response

In the Southbury/Newtown area, Cellco is licensed to operate in both the cellular (869-880, and 890 – 891.5 MHz) and PCS C3 Block (1985 - 1990 MHz) frequency bands. Cellco plans to install both PCS and cellular antennas on the same antenna platform at the proposed facility.

Question No. 2

Would Cellco's antennas be compliant with E911 requirements?

Response

Yes.

Question No. 3

With what adjacent sites would the proposed facility hand off signals? Identify by ID number and address.

Response

As depicted on the coverage plots included behind Tab 7 of the Application, the proposed site will hand-off calls to Cellco's "Newtown" cell site (Site # 0123) to the southwest and "Southbury West" cell site (Site # 0125) to the northeast.

Question No. 4

Provide the following information: number of channels per sector for each antenna system that would be installed on the proposed tower, ERP per channel for each antenna system, frequency at which each antenna system would operate.

Response

PCS Antennas

<u>Alpha Sector – 100 Ft.</u>	<u>Beta Sector – 100 Ft.</u>	<u>Gamma Sector – 100 Ft.</u>
(2) Antenna Type: LPA – 185080/12CF	(2) Antenna Type: LPA – 185080/12CF	(2) Antenna Type: LPA – 185080/12CF
Frequency: 1970-1975 MHz	Frequency: 1970-1975 MHz	Frequency: 1970-1975 MHz
No. Channels:3	No. Channels:3	No. Channels:3
ERP/Channel:200 W Max.	ERP/Channel:200 W Max.	ERP/Channel:200 W Max.

### Cellular Antennas

<u>Alpha Sector – 100 Ft.</u>	<u>Beta Sector – 100 Ft.</u>	<u>Gamma Sector – 100 Ft.</u>
(2) Antenna Type: LPA – 80080/8CF	(2) Antenna Type: LPA – 80080/8CF	(2) Antenna Type: LPA – 80080/8CF
Frequency: 869-880,890-891.5 MHz	Frequency: 869-880,890-891.5 MHz	Frequency: 869-880,890-891.5 MHz
No. Channels: 8	No. Channels: 8	No. Channels: 8
ERP/Channel: 200 W Max.	ERP/Channel: 200 W Max.	ERP/Channel: 200 W Max.

### Question No. 5

What frequency (or frequencies) is represented on the propagation maps provided after Tab 7 of the application?

### Response

The maps behind Tab 7 of the application show coverage at PCS frequencies. Coverage from Cellco's existing and proposed sites at cellular frequencies is depicted on the coverage plots behind Tab 1 of these responses.

### Question No. 6

Provide propagation maps showing the coverage just from the proposed site at Cellco's different operating frequencies.

### Response

The plots requested is included behind Tab 2.

Question No. 7

Of the letters sent to abutting property owners, how many certified mail receipts did Cellco receive? If any receipts were not returned, which owners did not receive their notice. Did Cellco make additional attempts to contact those property owners?

Response

Cellco identified thirty-one abutting properties owned by twenty-eight individuals or entities in its list of Adjacent Property Owners behind Tab 5 of the Application. Cellco has received twenty-two return receipts from its abutters' mailing. Five letters were returned. The mailing addresses on all returned letters were confirmed with the Southbury tax assessor's office. Three of the returned letters were marked "unclaimed" and were resent to the owners by regular mail. The letter to NYCONN Electric, Inc. was returned marked "Moved" and "Unable to Forward". The letter to Beulah Tappe was returned marked "Moved, Left No Address". This letter was resent to Attorney M. Nahoum who we learned is representing the Estate of Edward Tappe, the listed owner. A receipt for the letter to Florence Huth has not been returned.

Question No. 8

What is the total area Cellco's antennas would cover from this site?

Response

Cellco's proposed Newtown NE facility will provide coverage to an area of approximately 7.1 square miles at cellular frequencies and 4.5 square miles at PCS frequencies.

Question No. 9

What is the amount of coverage Cellco's cellular antennas at this site would achieve on I-84 at the proposed height? What is the distance Cellco's PCS antennas at this site would cover on I-84 at the proposed height?

Response

If you look at the "stand-alone" plots for the proposed site included behind Tab 2 of these responses, Cellco's antennas at the 100-foot level on the proposed tower would cover an approximately 2.9 mile portion of I-84 at cellular frequencies and an approximately 2.2 mile portion of I-84 at PCS frequencies. When the site is integrated into Cellco's existing wireless network in the area it is more appropriate to consider "best server" information to determine the amount of coverage from a particular site. Using "best server" information, the proposed cell site would cover an approximately 2.0 mile portion of I-84 at cellular frequencies and an approximately 1.9 mile portion of I-84 at PCS frequencies.

Question No. 10

What is the signal strength for which Cellco designs its system?

Response

-85 dBm.

Question No. 11

What is the existing signal strength in those areas Cellco is seeking to cover from this site? How were these signal strengths determined?

Response

Existing signal strength in the area ranges from -86 dBm to -105 dBm. These signal levels were determined through propagation modeling and are confirmed, on a monthly basis, using Cellco's internal baseline drive tests.

Question No. 12

Did Cellco conduct any drive tests for this site? If so, provide information depicting the results of these tests.

Response

Cellco did not perform any site-specific drive tests for the proposed facility.

Question No. 13

Could repeaters, microcells, or distributed antenna systems provide coverage in Cellco's target area comparable to that which would be provided by the proposed tower?

Response

No.

Question No. 14

How many trees with a diameter of 6" or greater at breast height would be removed to develop this site?

Response

Cellco estimates that sixty-four trees 6" diameter or larger, at breast height would be removed for construction of the access road and tower compound.

Question No. 15

Quantify the amounts of cuts and fills that would be required to develop this site.

Response

Development of the proposed cell site will require approximately 7 cubic yards of fill, and approximately 4.5 cubic yards of cut.

Question No. 16

Which specification would the proposed tower be built to – Electronic Industries Association Standard EIA/TIA-222-E or F?

Response

The Newtown NE tower will be designed to meet the structural requirements of the 2005 Connecticut State Building Code. TIA/EIA – F is a reference standard within the 2005 Connecticut State Building Code.

Question No. 17

How many carriers would the tower be designed to accommodate?

Response

This tower could be designed to support up to four carriers.

Question No. 18

When was Cellco's search ring for this area first issued? How large was the ring? Where was it centered? Submit a map showing the search ring.

Response

The Newtown NE search ring was originally issued in 2000, during the brief period when Cellco was relying on Crown Atlantic Company LLC ("Crown") to find and develop tower locations pursuant to a Build to Suit Agreement between the two companies. Crown was originally responsible for obtaining the lease at the proposed site. The Build to Suit Agreement

has since been terminated. The Newtown NE search area or ring was approximately  $\frac{3}{4}$  of a mile in diameter. The original search ring map is included behind Tab 3.

Question No. 19

Has Cellco contacted any other carriers about the possibility of using this site? If so, have any other carriers shown a potential interest in this site? Provide any supporting documentation.

Response

Yes. To date no other carrier has expressed any interest in this site.

Question No. 20

Has Cellco received any comments regarding this facility's potential on threatened or endangered species from Connecticut's DEP or the U.S. Fish and Wildlife Service? If so, provide these comments.

Response

Yes. Consistent with its practice, Cellco's representatives contacted both the U.S. Fish and Wildlife Service ("USFWS") and the Connecticut Department of Environmental Protection ("DEP") regarding the proposed telecommunications facility. According to the USFWS, in a letter dated August 24, 2006, there are "no federally-listed or proposed, threatened or endangered species or critical habitat" that are known to occur in the project area. The DEP, in letters dated November 2 and 27, 2006, identified the Bald Eagle, as a State endangered species that "occurs in the vicinity of this project". DEP recommends that at a minimum, to avoid affecting eagles that may occur in the area, that no construction work be done from February 1 to August 1. Copies of the USFWS and DEP letters are attached behind Tab 4.



Question No. 21

What is the lowest height at which Cellco's antennas could achieve its coverage objectives from this site? Submit propagation maps showing the coverage at ten feet below this height.

Response

The 100-foot level is the lowest height at which Cellco can satisfy its coverage objectives. Coverage plots showing Cellco's PCS and cellular antennas at the 90-foot level are included behind Tab 5. At 90 feet gaps in Cellco's PCS coverage begin to open along I-84 and local roads in the area. Cellular coverage at 90 feet remains reliable.

Question No. 22

Would any blasting be required to develop this site?

Response

Until a final geo-tech survey is prepared, at the time the D&M Plan is completed, Cellco will not know whether blasting will be required. However, based on existing conditions at the site we do not anticipate the need for blasting.

Question No. 23

Estimate the number of residences that would have a seasonal view of the tower.  
Estimate the number of acres that would have seasonal views of the tower.

Response

According to the Visual Resource Evaluation Report, VHB estimates that there will be seasonal views of the tower from approximately 26 acres within the 8,042 acre study area. VHB also estimates that approximately 26 residential properties may have seasonal views of the tower.

Views from some portion of the residential property does not necessarily mean there will be views from the residence (house) on that property.

Question No. 24

Is Cellco licensed to operate on both cellular and PCS frequencies in Fairfield County?

Response

Yes.

Question No. 25

Summarize the proposed tower's visual impact on Kettletown State Park.

Response

Based upon a review of the VHB viewshed model and additional in-field reconnaissance, we do not anticipate any year-round or seasonal views from Kettletown State Park. The park contains several hiking trails that feature two overlook areas. However, the view from both of these overlook areas is oriented directly across the Housatonic River, to the south and southwest. The proposed site is located to the northwest of the overlook locations and does not afford a direct line of site between these points. Views from other portions of the park would be obstructed by vegetation and/or topography in the area.

Question No. 26

Comments from SHPO refer to a reconnaissance survey prepared by Heritage Consultants. Why was this reconnaissance survey done? What was its scope? Provide a copy of the survey.

### Response

Cellco is required to develop a National Environmental Policy Act (NEPA) Screening Report ("Report") for each new tower site, pursuant to FCC requirements (47 CFR 1.1307). EBI Consulting ("EBI") of Burlington, Massachusetts is responsible for preparing these reports. (Five (5) copies of the final NEPA Report were filed (in bulk) with the Council on January 9, 2007). The Report includes, among other things, an evaluation of the site to identify any historic or archeological resources that might be impacted by the proposed tower development. EBI works closely with Heritage Consultants ("Heritage"), a firm specializing in archeological reviews, when producing the Report. The preliminary archeological report prepared by Heritage is submitted to the State Historic Preservation Office as a matter of practice. Heritage completes an archeological review of the site including a site walk. After review of the Report for the proposed site, the SHPO determined that the project would have "no effect" on "Connecticut's cultural heritage" or "historic, architectural, or archeological resources" listed on or eligible for the National Register of Historic Places. A copy of the Heritage Report, referred to in the SHPO comment letter is included behind Tab 6.

### Question No. 27

The application refers to screening for the proposed compound, but no landscaped screening is shown on the site plans. What would be the nature of this screening?

### Response

No additional screening is proposed at this time. Screening can be provided if the Council determines it to be necessary.

Question No. 28

Who owns the nearest residence?

Response

The closest residence is located approximately 590 feet to the northwest of the tower site and is owned by Bernice J. and Victoria Thomas at 155 Upper Fish Rock Road.

Question No. 29

Did any of the boards or commissions of the Towns of Southbury or Newtown conduct any meetings about this proposal or issue any statements or recommendations regarding it?

Response

No.

Question No. 30

Would Cellco provide space for the Town of Southbury's antenna and ground equipment at no charge?

Response

Yes. As discussed in the Application, the Town of Southbury Police Department intends to install a 20-foot whip antenna at the top of the proposed tower to improve local emergency service communications.

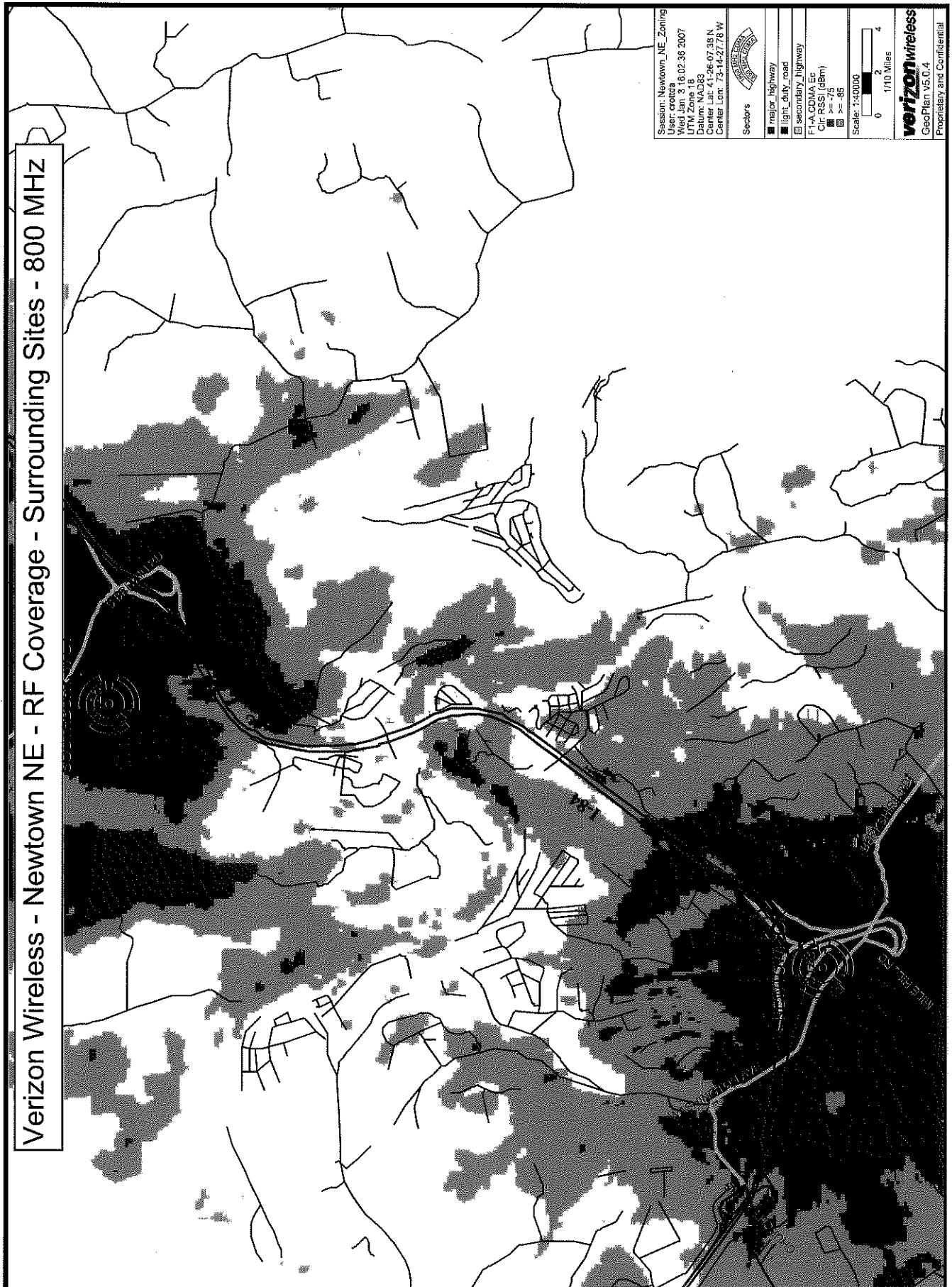
Question No. 31

Is the 1.3 mile coverage gap on I-84 referred to on page 7 of the application a gap in cellular coverage?

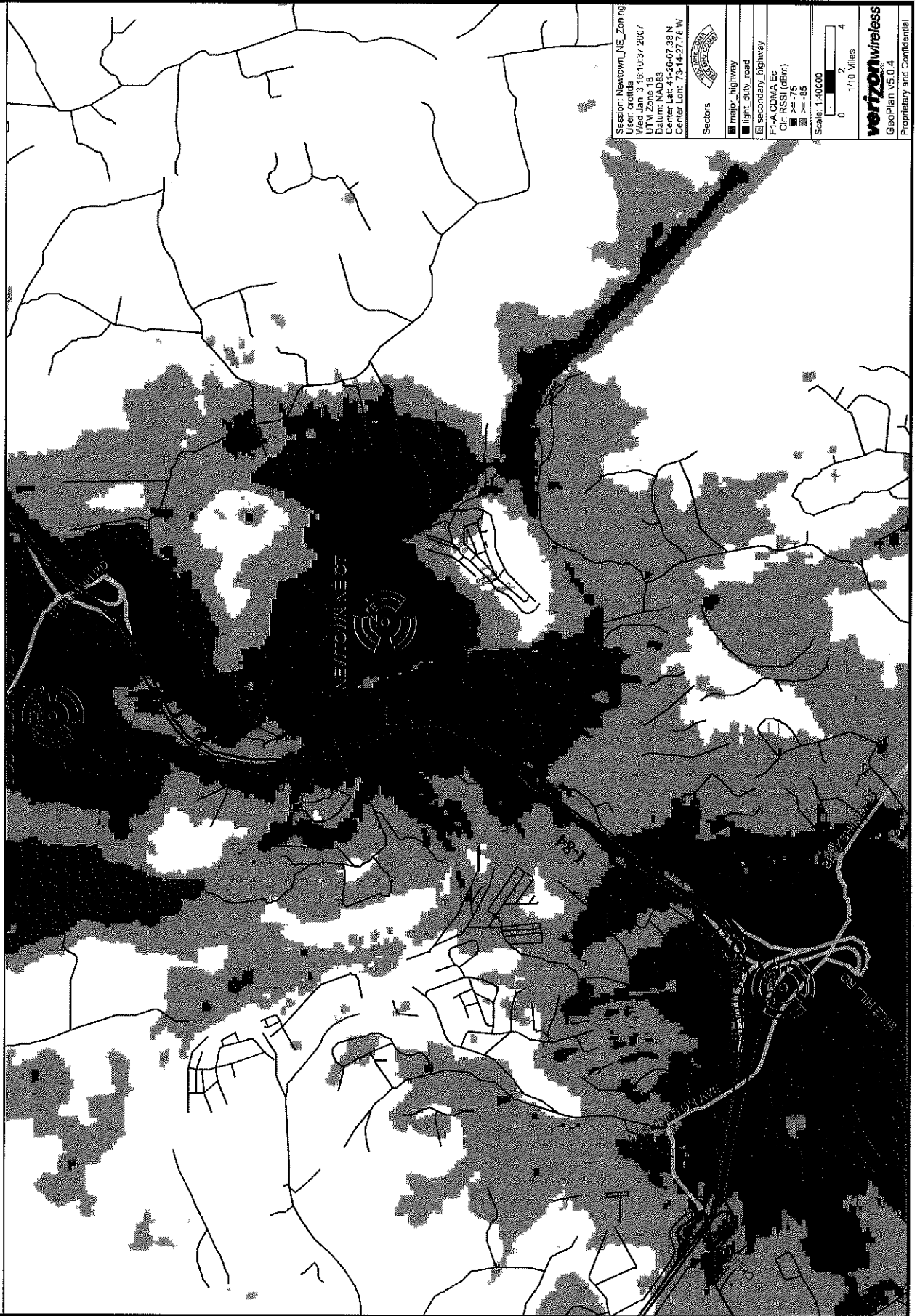
Response

The coverage gap referenced in the Application is a gap in PCS coverage. In fact, the 1.3 mile distance referenced in the Application is an error. The PCS coverage gap is actually 1.8 miles along I-84. Cellco's cellular coverage gap in this same area is approximately 1.5 miles along I-84.



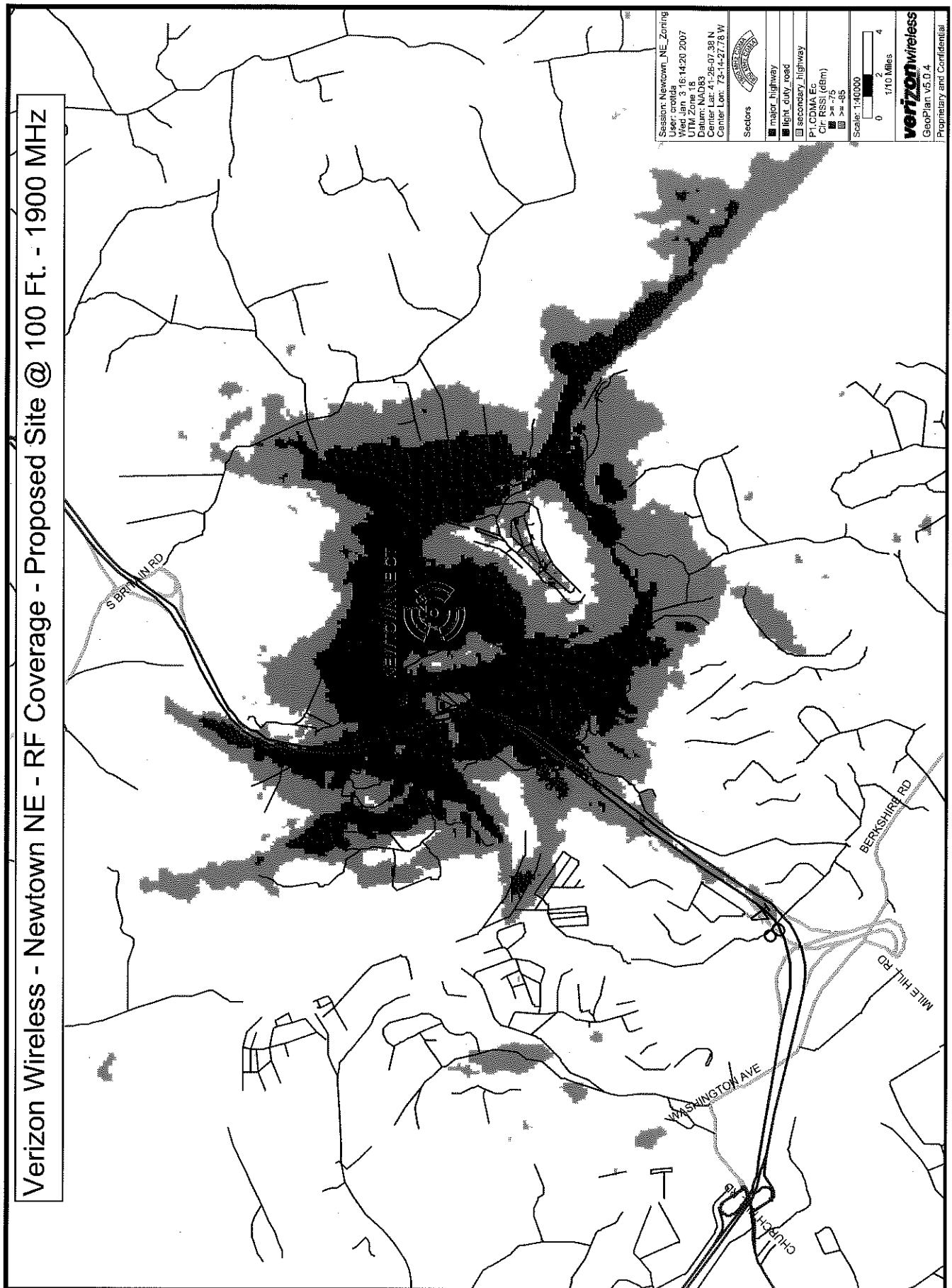


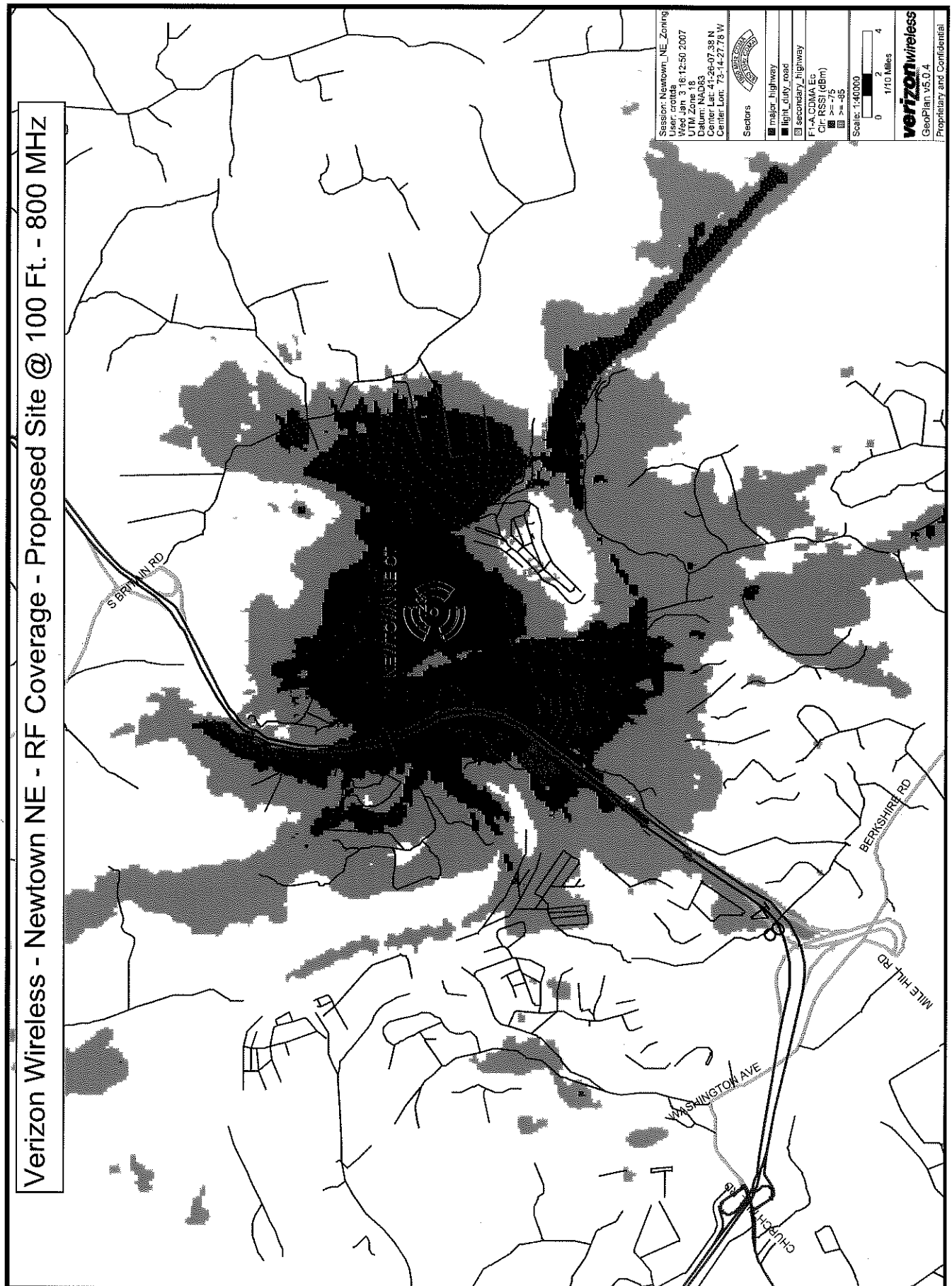
Verizon Wireless - Newtown NE - RF Coverage - Surrounding Sites + Proposed @ 100 Ft. - 800 MHz











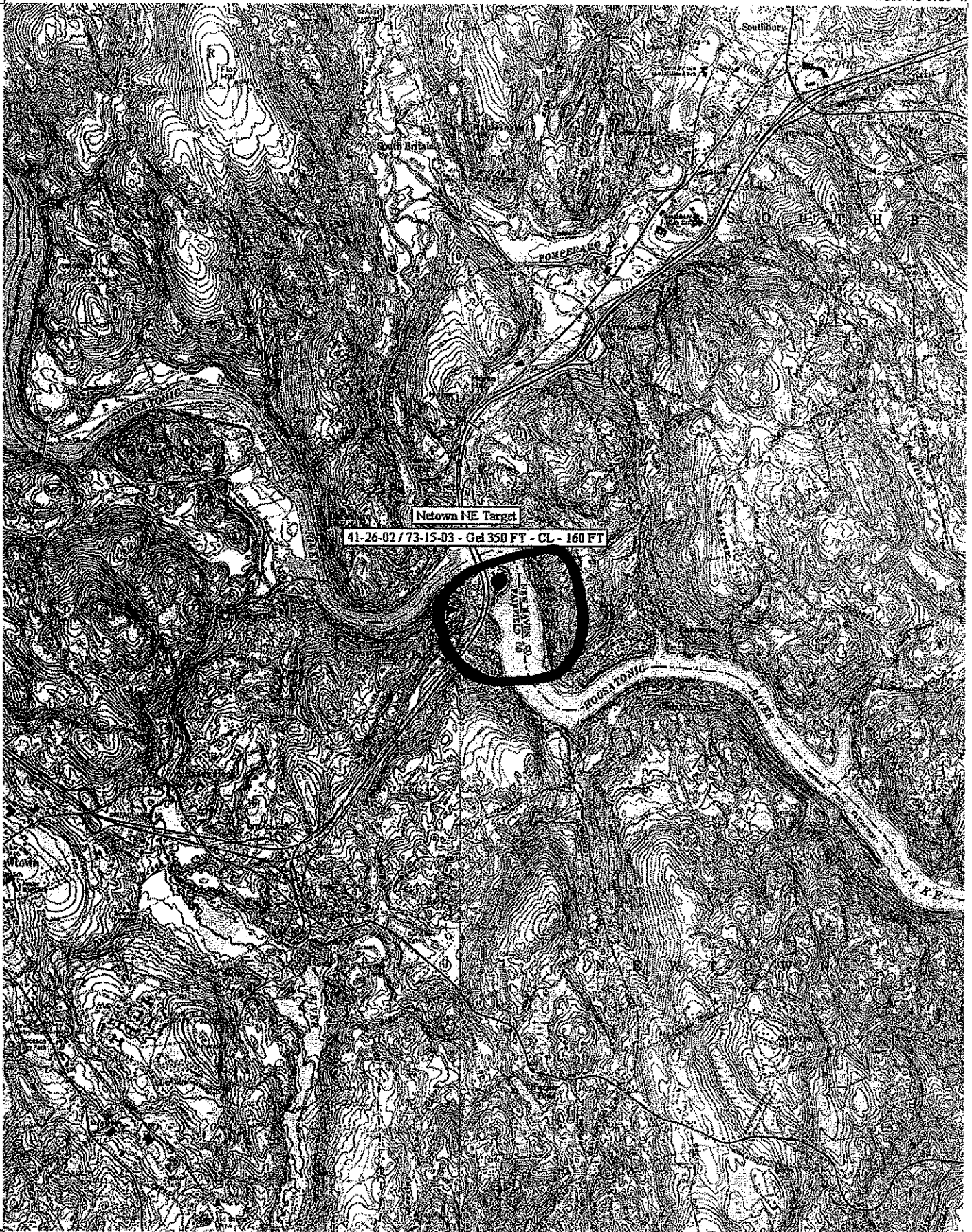


Newtown NE

WGS84 73°11'36" W

73°18'01" W

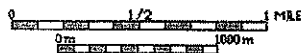
41°29'05" N



41°22'59" N

73°18'01" W

MN TN  
142°



WGS84 73°11'36" W





## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New England Field Office  
70 Commercial Street, Suite 300  
Concord, New Hampshire 03301-5087



August 24, 2006

Reference: See attached sheet for a list of projects covered by this letter

Joel Dukes, Maureen Taylor,  
Linda Mackey, Trevelyn Potter,  
Jessica Wellum, Kimberly Threlfall,  
Kim Ashley, Jennifer Vito,  
David Akerblom  
EBI Consulting  
Four A Street  
Burlington, MA 01803

Ladies and Gentlemen:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activity(ies) referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes our review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your coordination. Please contact us at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Michael J. Amaral  
Endangered Species Specialist  
New England Field Office

Attachment

<u>Project</u>	<u>Location</u>	<u>Project #</u>
Tower	Weston, MA	61062896
Tower	Westport, MA	61062662
Tower	Southington, CT	61061091
Antenna co-location	Franklin, MA	61062595
Tower	Coventry, RI	61062597
Tower	Derry, NH	61062683
Tower	Hartland, VT	61060942
Antenna co-location	Hamden, CT	61050559
Tower	Southbury, CT	61063793
Tower	Londonderry, NH	61062673
Tower	Shelburne, NH	61062799
Tower	Newbury, MA	61062019
Tower	Boylston, MA	61063443
Antenna co-location	West Haven, CT	61063860
Tower	Springfield, VT	61063690





**STATE OF CONNECTICUT**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**



Bureau of Natural Resources  
Division of Wildlife  
79 Elm Street, 6<sup>th</sup> Floor  
Hartford, CT 06106  
Natural Diversity Data Base

November 2, 2006

Ms. Kim Ashley  
EBI Consulting  
Mid-Atlantic Regional Office  
6876 Susquehanna Trail South  
York, PA 17403

re: Verizon Wireless New Telecommunication  
Facility at 111 Upper Fish Rock Road in  
Southbury, Connecticut


Dear Ms. Ashley:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed Verizon Wireless New Telecommunication Facility at 111 Upper Fish Rock Road in Southbury, Connecticut. According to our information, there are Federal Threatened and State Endangered Bald Eagles (*Haliaeetus leucocephalus*) that occur in the vicinity of this project. I have forwarded this application to Julie Victoria (DEP-Wildlife Division; 860-642-7239) for further review. She will write to you directly with her comments.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

  
Dawn M. McKay  
Biologist/Environmental Analyst

Cc: Julie Victoria  
NDDDB #14909, # 14913



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FRANKLIN WILDLIFE MANAGEMENT AREA

391 ROUTE 32  
NORTH FRANKLIN, CT 06254  
TELEPHONE: (860) 642-7239



November 27, 2006

Ms. Kim Ashley  
EBI Consulting  
Mid-Atlantic Regional Office  
6876 Susquehanna Trail South  
York, PA 17403

Re: New Telecommunication Facility for Verizon, 111 Upper Fish Rock Rd., Southbury

Dear Ms. Ashley:

Your request was forwarded to me on 11/15/06 from Dawn McKay of the Department of Environmental Protection's (DEP) Natural Diversity Database. Their records indicate that bald eagles (*Haliaeetus leucocephalus*), which are federally threatened and state endangered, are within the area of this project.

The bald eagle is a state endangered and federally threatened species. "Take" is defined in the Endangered Species Act as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting listed wildlife species; attempting to engage in such conduct; or soliciting or causing such acts to be committed. "Harm" is defined as significantly impairing essential behavioral patterns including breeding, feeding, or sheltering. "Harass" is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include but are not limited to, breeding, feeding, or sheltering.

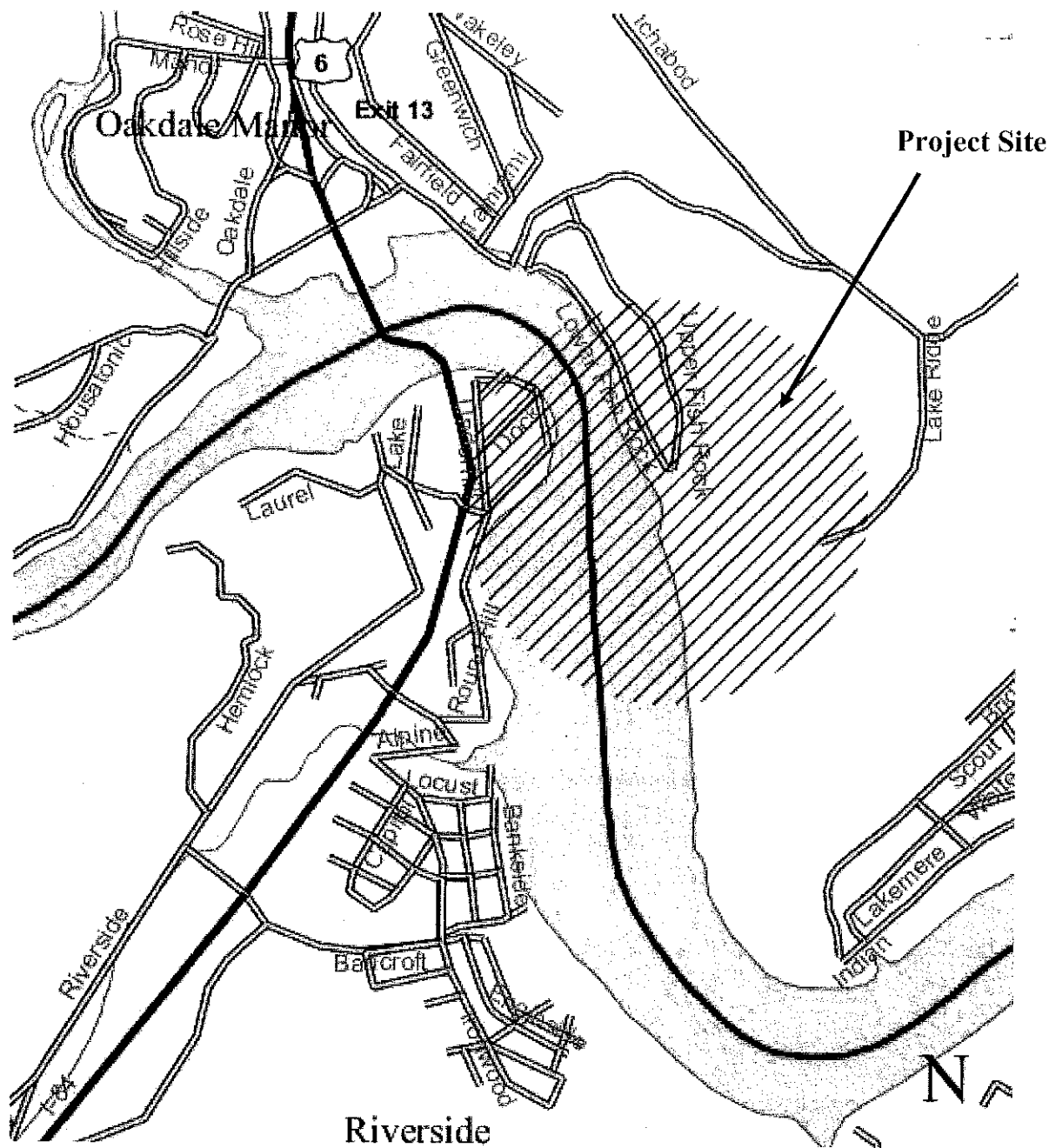
The Wildlife Division has not made an on-site inspection of the project area nor been provided with details or a timetable of the work to be done. At a minimum, to avoid affecting eagles the Wildlife Division requires that work not be done in this area from February 1 to August 1.

I recommend that you forwarding a copy of your request to the U. S. Fish and Wildlife Service (USFWS) for their information and notification (Michael Amaral, USFWS New England Field Office, 70 Commercial Street, Suite 300, Concord, NH 03301-5087). Please be advised that formal consultation with the USFWS may be required to avoid adverse effects to bald eagles. Formal consultation with the USFWS, as described under Section 9 of the Endangered Species Act, is a process by which the Service determines whether the adverse effect is likely to jeopardize the continued existence of a species or cause "take". Consultation with the Wildlife Division should not be substituted for on-site surveys required for environmental assessments. If you have any questions or need additional information please contact me. Thank you for the opportunity to comment.

Sincerely,

Julie Victoria  
Wildlife Biologist  
Franklin Swamp Wildlife Management Area  
391 Route 32  
N. Franklin, CT 06254  
phone: 860-642-7239 fax: 860-642-7964  
[julie.victoria@po.state.ct.us](mailto:julie.victoria@po.state.ct.us)

cc: NDDB - 11171, 14909, 14913



## LEGEND

////// NDDB Area of Concern \*

STATE AND FEDERAL LISTED SPECIES  
AND SIGNIFICANT NATURAL COMMUNITIES

SOUTHBURY, CT



CT DEP MAP

**NATURAL DIVERSITY DATABASE MAP**  
**NEWTON NE**  
**111 UPPER FISH ROCK ROAD**  
**SOUTHBURY, CONNECTICUT**

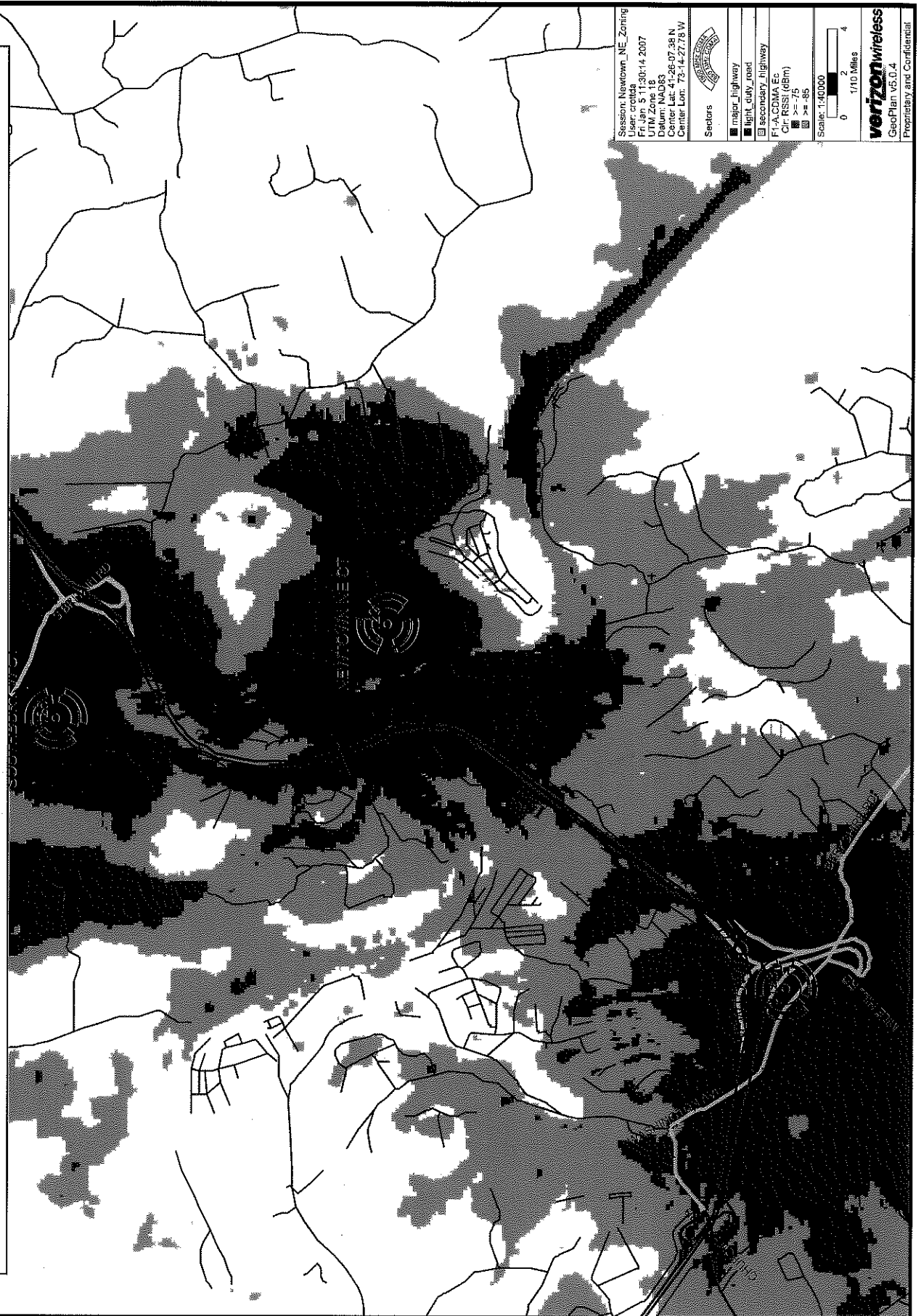




Verizon Wireless - Newtown NE - RF Coverage - Existing + Proposed Site @ 90 Ft. - 1900 MHz



Verizon Wireless - Newtown NE - RF Coverage - Existing + Proposed Site @ 90 Ft. - 800 MHz





FINAL REPORT

OCTOBER 2006

**PHASE I CULTURAL RESOURCES  
RECONNAISSANCE SURVEY OF A PROPOSED  
CELLULAR COMMUNICATIONS FACILITY  
LOCATED AT 111 UPPER FISH ROCK ROAD,  
SOUTHBURY, CONNECTICUT**

PREPARED FOR:

EBI CONSULTING, INC.  
FOUR A STREET  
BURLINGTON, MA 01803



HERITAGE CONSULTANTS, LLC  
877 MAIN STREET  
NEWINGTON, CONNECTICUT 06111



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- Figure 2. Plan view of the proposed cellular communication facility, and the proposed access road.
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- Figure 14. Excerpt from a 2004 aerial photograph depicting the location of the Area of Potential Effect.
- Figure 15. Digital map depicting the locations of previously identified cultural resources within the vicinity of the Areas of Potential Effect.

## **1.0 Introduction**

This report summarizes the results of a Phase I cultural resources reconnaissance survey of a proposed cellular communications facility to be constructed within the rear of residential lots of 111 Upper Fish Rock Road in Southbury, Connecticut. Heritage Consultants, LLC, completed the field investigation portion of this project, performed on behalf of EBI Consulting, Inc., on September 29, 2006. All work was conducted in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; and the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987). The remainder of this document presents a description of the Areas of Potential Effect, information used as project context, the methods for the current Phase I cultural resources reconnaissance survey, results of the investigation, and management recommendations for the project.

## **2.0 Project Description**

As mentioned above, the proposed cellular communications facility will be located in Southbury, Connecticut (Figure 1). The Areas of Potential Effect are situated at an approximate elevation of 121.2 m (400 ft) NGVD; they are bounded to the east, north, and west by wooded areas and to the south by residential housing lots. The Areas of Potential Effect consist of a proposed lease area measuring 30.3 x 30.3 m (100 x 100 ft) in size and a single proposed access road that will extend from Upper Fish Rock Road for a distance of approximately 333.3 m (1,100 ft); however, only the southerly 60.6 m (200 ft) of the proposed access will be a newly constructed thoroughfare (Figure 2). The remainder of the proposed access road consists of an existing dirt path that will be widened to 3.6 m (12 ft) during construction. The proposed lease area will house an equipment shelter, a 30.3 m (100 ft) monopole type cellular communications tower, an ice bridge and posts, a transformer and utility cabinet, and protective bollards. All of these items will be enclosed within a chain link fence.

At the time of survey, the Areas of Potential Effect were characterized by mixed deciduous/coniferous forest and overgrown areas (Figure 3 through 6). The Areas of Potential Effect associated with the proposed lease area were surveyed using systematic shovel testing in an effort to identify evidence of intact soil strata and cultural deposits. The proposed access road, however, was subjected to judgmental shovel testing, visual reconnaissance and photo-documentation since it consisted of an extremely compacted and eroded surface; the access road also crossed numerous areas of considerable slope and it exhibited evidence of having been previously impacted by logging. The details of the field methods, as well as the results of this field effort, are reviewed below.

## **3.0 Background Research**

The current Phase I cultural resources reconnaissance survey was completed using a three-step approach. The first step consisted of historic research and records review that focused on the area of Southbury encompassing the Areas of Potential Effect. This was followed by a review of all previously recorded archeological sites situated within the vicinity of the project area in an effort to determine the archeological context of the region. Finally, this approach entailed the completion of the current Phase I cultural resources reconnaissance survey.

Background research included analysis of readily available historic maps and aerial imagery depicting the region encompassing proposed project area; an examination of the pertinent 1983 USGS 7.5' series topographic quadrangle; and a review of all archeological and historic standing structure data maintained by the Connecticut State Historic Preservation Office and digital records archived by Heritage Consultants, LLC. The intent of this review was to identify all previously recorded cultural resources situated within and/or immediately adjacent to the Areas of Potential Effect. This information was used to develop the archeological context for assessing cultural resources that may be identified during survey.

#### **4.0 Project Context: Previous Investigations, Natural & Prehistoric Settings, and Historic Overview**

The following sections provide an overview of the region's natural and prehistoric settings, historic backdrop, and previous cultural resources investigations completed within the vicinity of the Areas of Potential Effect. These brief discussions are included in an effort to provide contextual information relative to the location of the Areas of Potential Effect, its natural characteristics, and its prehistoric and historic use and occupation. It concludes with an overview of the previous cultural resources investigations that have taken place in the area and a discussion of their results.

##### 4.1 Natural Setting

The Areas of Potential Effect are situated within the Southwest Hills ecoregion of Connecticut. The Southwest Hills ecoregion region consists of an upland area lying within 25 miles of Long Island Sound. This area is characterized by "low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep rugged topography" (Dowhan and Craig 1976). Elevations in this part of Connecticut range from 250 ft to a maximum of nearly 1,000 ft above sea level. The bedrock of the region consists of sedimentary and igneous rocks; primarily of gneisses and schists created during the Paleozoic. Soils vary from glacial till in the uplands of the region, to sand, gravel, silt, and clay within the valleys and multiple upland locations. Vegetation located within the immediate vicinity of the Areas of Potential Effect consists of mixed forests. Finally, local fauna include rainbow trout, largemouth bass, sucker, rabbit, fox, raccoon, opossum, squirrel, white tailed deer, five-lined skink, the bog turtle, and a wide variety of terrestrial and aquatic bird species.

##### 4.2 Prehistory of Connecticut

The earliest inhabitants of Connecticut, referred to as Paleo-Indians, probably arrived in the area after ca. 14,000 B.P. (Gramly and Funk 1990; Snow 1980). While there have been numerous finds of Paleo-Indian projectile points throughout Connecticut, only two sites, the Templeton Site (6-LF-21) and the Hidden Creek Site (72-163), have been studied in detail (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut on a terrace overlooking the Shepaug River. Carbon samples recovered during excavation of the site area produced a radiocarbon date of 10,190±300 B.P., for the occupation. In addition to a single large and two small fluted points, the Templeton Site produced graters, drills, core fragments, scrapers, and channel flakes, indicating that the full range of lithic reduction took place within the site area (Moeller 1980). Moreover, use of both exotic and local raw materials was documented in the recovered lithic assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant lithic sources.

The only other Paleo-Indian site studied in detail is the Hidden Creek Site (72-163) (Jones 1997). Paleo-Indian artifacts recovered from this site include bifaces, side scrapers, a fluted preform, graters, and end scrapers. While no direct date for the Paleo-Indian assemblage yet has been obtained, Jones (1997:76) argues that based on typological considerations the artifacts likely date from ca., 10,000 to 9,500 years ago. Further, based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represents a short-term occupation. Excavation of both sites suggest that the Paleo-Indian settlement pattern consisted of a high degree of mobility, with groups moving regionally in search of seasonal food resources, as well as for high quality lithic materials.

The Archaic Period began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980). Later, Griffin (1967) and Snow (1980) divided the Archaic Period into three subperiods: the Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). To date, very few Early Archaic sites have been identified in southern New England. Like Paleo-Indian sites, Early Archaic sites tend to be very small and produce few artifacts, most of which are not diagnostic. Sites of this age are identified based on the recovery of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by their characteristic bifurcated base, and they generally are made from

high quality lithics, though some quartz and quartzite specimens have been recovered. Current archeological evidence suggests that Early Archaic groups became more focused on locally available and smaller game species. Occupations of this time period are represented by camps that were moved periodically to take advantage of seasonal resources (McBride 1984).

By the onset of the Middle Archaic Period, increased numbers and types of sites are noted in the region (McBride 1984). The most well known Middle Archaic site in New England is the Neville Site (Dincauze 1976). Analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. These sites are associated with the recovery of Neville, Stark, and Merrimac projectile points. McBride (1984) noted that Middle Archaic sites in the lower Connecticut River Valley tend to be represented by moderate density artifact scatters representing a "diversity of site types, with both large-scale occupations and small special purpose present" (McBride 1984:96). Thus, based on the available archeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

The Late Archaic Period in southern New England is divided into two major cultural traditions: the Laurentian and Narrow-Stemmed Traditions (Funk 1976 McBride 1984; Ritchie 1969a and b). Laurentian artifacts include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights and scrapers. The diagnostic projectile point forms of this time period include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). Current archeological evidence suggests that Laurentian populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been identified and studied, they generally encompass less than 500 m<sup>2</sup> in area. These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1984:252).

The latter portion of the Late Archaic is represented the Narrow-Stemmed Tradition. It is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). In general, the Narrow-Stemmed Tradition corresponds to when Late Archaic populations in southern New England began to "settle into" well-defined territories. Further, Narrow-Stemmed Tradition settlement patterns are marked by an increase in the types of sites utilized. That is, the Narrow-Stemmed Tradition witnessed the introduction of large base camps supported by small task-specific sites and temporary camps. The increased number of Narrow Stemmed Traditions temporary and task specific sites indicates frequent movements out of and back into base camps for the purpose of resource procurement; however, the base camps were relocated seasonally to position groups near frequently used, but dispersed, resources (McBride 1984:262).

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 B.P., is represented by the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is based on the classification of several BROADSPEAR projectile point types and associated artifacts. Temporally diagnostic projectile points of this tradition include the Snook Kill, Susquehanna Broad, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). In addition, the material culture of the Terminal Archaic includes soapstone vessels, chipped and ground stone adzes, atlatl weights, drills, net sinkers, plummets and gorgets (Lavin 1984; McBride 1984; Ritchie 1969a and 1969b; Snow 1980). Susquehanna Tradition settlement patterns are centered around large base camps located in on terrace edges overlooking floodplains. Acting as support facilities for the large Terminal Archaic base camps were numerous task specific sites and temporary camps. Such sites were used as extraction points for the procurement of resources not found in the immediate vicinity of the base camps, and they generally were located adjacent to upland streams and wetlands (McBride 1984:282). Finally, there also are a large number of Terminal

Archaic cremation cemeteries with burials that have produced broadspear points and radiocarbon dates between 3,700 and 2,700 B.P. (Pfeiffer 1990). Among the grave goods are ritually “killed” (intentionally broken) steatite vessels, as well as ground stone and flaked stone tools (Snow 1980:240); however, this represents an important continuation of traditions from the Late Archaic and it should not be regarded as a cultural trait unique to the Susquehanna Tradition (Snow 1980:244).

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been commonly divided into three subperiods: Early, Middle, and Late Woodland. The Early Woodland period of the northeastern United States dates from ca., 2,700 to 2,000 B.P. In his study of the lower Connecticut River Valley, McBride (1984) described Early Woodland sites as “characterized by a quartz cobble lithic industry, narrow-stemmed points, an occasional Meadowood projectile point, thick, cord-marked ceramics, and perhaps human cremations” (McBride and Soulsby 1989:50). Early Woodland sites tend to be located in a variety of different ecozones; however, the largest settlements associated with this period were focused on floodplain, terrace, and lacustrine environments (McBride 1984:300), suggesting “population aggregations along major rivers, interior lakes, and wetlands” (McBride and Soulsby 1989:50). In sum, archeological evidence indicates that Early Woodland populations consisted a mobile hunter/gatherers that moved seasonally throughout a diversity of environmental zones in search of available plant and animal resources.

The Middle Woodland Period of southern New England prehistory is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). In Connecticut, the Middle Woodland Period is represented archeologically by the use of narrow stemmed and Jack’s Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types indicative of the Middle Woodland period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200). In terms of settlement patterns, the Middle Woodland period is characterized by the occupation of village sites by large co-residential groups. These sites were the principal place of occupation, and they were positioned in close proximity to major river valleys, tidal marshes, estuaries, and the nearby coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains.

The Late Woodland period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of maize in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1973, 1974; McBride 1984; Snow 1980). Late Woodland lithic assemblages typically contain up to 60 to 70 percent exotic lithics. Finished stone tools include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools (McBride 1984; Snow 1980). In addition, ceramic assemblages recovered from Late Woodland sites include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised types (Lavin 1980; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947).

Finally, McBride (1984:323-329) characterized Late Woodland settlement patterns as more nucleated than the preceding Middle Woodland ones, with fewer, larger sites situated in estuarine and riverine

ecozones. Both river confluences and coastal zones were favored areas for the establishment of large village sites that contain numerous hearths, storage pits, refuse pits, ceramic production areas, house floors, and human and dog burials (Lavin 1988b; McBride 1984). McBride (1984:326) has argued that these sites certainly reflect multi-season use, and were perhaps occupied on a year-round basis (see also Bellantoni 1987). In addition to large village sites, McBride (1984:326) identified numerous temporary and task-specific sites in the uplands of the lower Connecticut River Valley and along the coastline. These sites likely were employed for the collection of resources such as plant, animal, and lithic raw materials. These sites tend to be very small, lack internal organizational structure, and usually contain a limited artifact assemblage and few cultural features, suggesting that they were occupied from only a few hours to perhaps overnight. Temporary camps, on the other hand reflect a longer stay than task-specific camps, perhaps on the order of a few days to a week, and they contain a more diverse artifact assemblage indicative of more on-site activities, as well as more features (McBride 1984:328-329). In sum, settlement patterns of the Late Woodland period are characterized by “1) aggregation in coastal/riverine areas; 2) increasing sedentism, and; 3) use of upland areas by small task groups of individuals organized for specific tasks” (McBride 1984:326).

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence pattern, and land use strategies. For the majority of the prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland period that incontrovertible evidence for the use of maize horticulture as an important subsistence pursuit is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project parcel, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

#### 4.3 History of the Proposed Project Region

Southbury, incorporated 1787, was initially part of the town of Woodbury. The latter town was founded in 1673 by a group of colonists from Stratford, who first called the settlement Pomperaug after a local Indian chief; the General Court renamed it Woodbury in 1674. In 1675, when King Philip's War broke out, the residents fled to nearby Stratford for safety, and in 1678 the General Court had to order some of them to return to their property in Woodbury. In accordance with the practice of the time, the founders had secured the permission of the General Court to start a new settlement at Pomperaug in 1672, and in 1673 made a purchase of the necessary land from the Potatuck Indians (Crofut 1937). These Potatuck Indians appear to have been a small community that never gave trouble to the English settlers living in the area of Newtown and Woodbury (De Forest 1852). At the time of white settlement, there may have been several hundred Potatuck Indians living in the area, mostly in the section later called South Britain that is now part of Southbury (Crofut 1937). Although they reserved a large portion of land for themselves out of their sales to the whites, over time most of them moved away to less densely colonized areas, and in 1758 the last of their reservation was sold (Cothren 1854). This sale followed the death of Manquash, probably the last sachem, and by 1761 only a few were left (Rockey 1892).

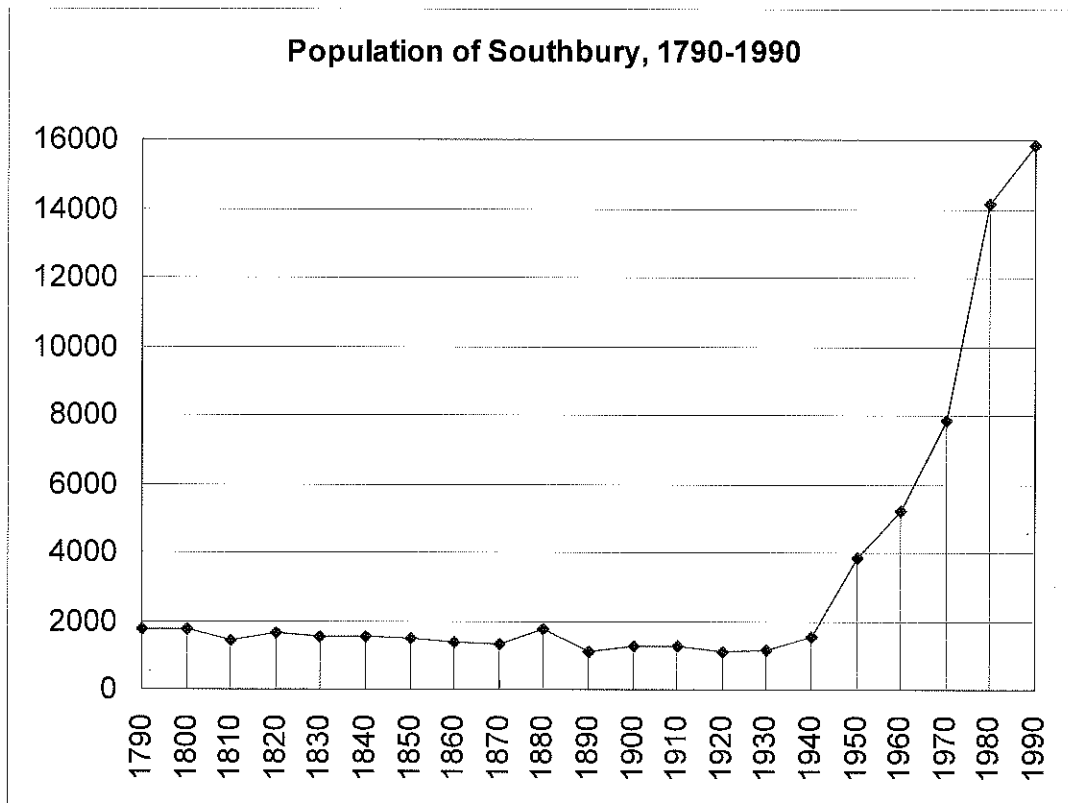
The map of the various Indian purchases prepared by William Cothren shows the sequence of purchases, with the first located where the historic center of Woodbury came to be located (Figure 7). According to this map, the Areas of Potential Effect falls within the fifth purchase, labeled “Kettletown.” According to Cothren, the 1679 deed from “Cheabrook, an Indian, together with the consent and approbation of Coshusheougemy Sachem, the sagamore of puttatuck,” was a re-sale of land that, according to local tradition, had previously been purchased for the price of a copper kettle (hence the name Kettletown) (Cothren 1854:24). The purchase actually included some land that later was part of Derby. The Areas of Potential Effect are also located close to the Pomperaug River, which was a boundary of the area that the

Potatuck reserved for themselves in their 1706 general deed confirming previous purchases, labeled “‘The Reservation’ or ‘The Purchase’” in Cothren’s map, previously mentioned. These two pieces were the largest sections of the present Southbury; the smaller northernmost section of the town was included in the first three purchases. The Potatucks’ reservation remained in their possession only through 1758, as they first sold one small piece in 1729, about half of the remainder in 1733, half the remainder of that in 1734, and the last remnant containing their main village in 1758 (Cothren 1854).

Although the Kettletown purchase was not made until 1679, some one reports have white settlers living there as early as 1673 (Crofut 1937). The process of forming a new town began formally in 1730, when a new ecclesiastical society called Southbury was formed by order of the General Court, and despite some internal controversies became a solid institution. In 1761, the residents of the former Potatuck reservation, then known as South Britain, secured permission to hold separate church services in the winter; in 1764, they filed a petition for an entirely separate society, which was granted in 1766 (Cothren 1854). These details are important because an ecclesiastical society had the right to impose taxes on its residents for the support of the ministry, and their formation signaled the existence of a community of a size and cohesion that often proved sufficient to form the nucleus of a new town. Consequently, the appearance of a petition for the creation of a new town in 1786, composed of the ecclesiastical societies of Southbury, South Britain, and a small part of Oxford, can be seen as the continuation of a process that had been underway for some time. Woodbury agreed to the division, and in 1787 the General Assembly created the town of Southbury (Cothren 1854). Prior to this, however, the Revolutionary War occurred, bringing with it several local events. In 1778 General George Washington’s army, in addition to serving a variety of supply and storage functions, marched through the town and built a bridge across the Housatonic; it was located to the west of the Areas of Potential Effect (Rockey 1892). In addition, the army of General Count Rochambeau marched through Southbury on its way to and from assisting the Continental Army in 1781 and 1782. Their route took them along the main north-south road through the town and across Bennett’s Bridge, to the west of the Area of Potential Effect (Figure 15).

The population of Southbury was remarkably stable, remaining below 2,000 until 1950 (CT-DEP 1996; (see chart below). This was despite several advantages that the town had in the matter of manufacturing capacity. In 1836, Barber described Southbury as containing good soil and, in the Pomperaug River, an excellent mill stream. According to this account the most notable village was South Britain, which had more than twenty houses, as well as three stores, one each of Congregational and Methodist churches, a carpet factory and as many as three hat factories (Barber 1836). As of the mid-1850s, Southbury was a “beautiful, farming town,” with two Congregational and two Methodist congregations. Commercial and industrial activity included “three taverns, four blacksmith shops, several shoe shops, one saddler’s shop, four grist mills, ten saw mills, one paper mill, one manufactory for edge tools, &c., several wool-hat manufactories, one sattinet manufactory, one shear do., one tine ware do., and seven stores” (Cothren 1854, 237-238). In addition, a waterpower company had been set up on the Pomperaug River to supply power to any number of actual and future factories. The approximately 1,400 residents of the town included three physicians, three ministers, and one lawyer (Cothren 1854). Despite these promising developments, the town’s population actually declined somewhat through 1870, and collapsed again as of 1890 (CT-DEP 1996). In 1873, the town had “three taverns, several sawmills, a paper mill, and shops where shoes and other articles were made” (Crofut 1932). As of 1932, the town’s industries included “the manufacture of steel traps, organ springs and tacks,” in addition to agriculture (Connecticut 1932).





A further advantage that Southbury had was its early transportation network. Road maintenance in Connecticut was normally the province of the individual towns, which encountered great difficulty in securing the funds and manpower required to keep them up properly. A common answer to this problem was privatization of roads in the form of the incorporation of turnpike companies, which were permitted to charge tolls in exchange for building, improving, and maintaining roads. One of the earlier turnpike companies in Connecticut developed a route between Southbury and Derby beginning in 1795, known as the Oxford Turnpike Company. In essence an improvement of an old road, this was also one of the more successful of these roads, helping to funnel trade and traffic toward New Haven and its busy wharves. The company collected tolls for almost ninety years, but in the end its various sections became free roads between 1880 and 1887. This road, however, passed northeast of the Area of Potential Effect. A second early road was the Ousatonic Turnpike, named for the river it followed from New Milford to Derby, including through Southbury. The corporation was formed in 1798, but for various reasons – despite the clear advantages of an improved road along the river – the section between Southbury and New Milford was made a free road in 1813, and the company limped along with only two-thirds of its road until it was dissolved in 1842. Finally, a third, short-lived road was the East and West Middle Turnpike, which connected Hartford and Danbury, and passed through Southbury in a north-south direction; it crossed the Naugatuck River a short distance west of the Area of Potential Effect. The corporate history of this road is complex, but it was first established in 1803, became known commonly as the Hartford and Danbury Turnpike. In 1823 the ownership of the road was divided in two, with the part in Southbury going to the West Middle Turnpike Company. The road was less successful than the Oxford Turnpike, as its charter was revoked in 1839 (Wood 1919). Notwithstanding these various closures, an 1852 map of the shows a tollgate on the road a short distance west of the Area of Potential Effect (Figure 8).

The railroad situation is probably what caused Southbury's failure to become an important nineteenth-century manufacturing town. The Housatonic Railroad, built from Bridgeport to New Milford by 1840, left the river to pass through Newtown instead of going through or across the river from Southbury. The Boston, Hartford & Erie Railroad planned to build a road westward from Waterbury, Connecticut to Fishkill, New York, which passed through Southbury (Turner and Jacobus 1989). This Southbury portion was surveyed in 1845, but the land for it was not acquired until 1868 and construction continued until 1870, when it was only three-fourths done (Rockey 1892). Nonetheless, it was depicted on an 1868 map by F. W. Beers, which shows it passing from north of the Area of Potential Effect to west of it (Figure 9). The original company went bankrupt in 1870; the New York & New England Company sought to purchase the old rights, but initially had some difficulty due to old debts (Turner and Jacobus 1989). Construction did not start again early in 1880, and the section opened in July 1881. There were two stations, one called Pomperaug Valley and serving the central part of town, and the other Southford, serving the eastern part of town (Rockey 1892). The whole line was not completed through to Fishkill until 1882. Despite competition from existing routes along the coastline through New Haven to New York City, this route continued in existence for some time. The New York & New England changed to the New England Railroad in 1895, but in 1898 its tracks were all leased to the New Haven Railroad. In 1948, the section between Southbury and Hawleyville was abandoned (Turner and Jacobus 1989). It may be that the prospect of this road's completion contributed to Southbury's jump in population between 1870 and 1880, as shown in Chart 1 above, but in the 1860s multiple existing railroads, especially those along the shoreline, had already given other towns substantial boosts in population and industry. Southbury, even with the connection between New York and Hartford completed, may have been far enough behind already that it could not compete as an industrial location with booming locations such as Waterbury, Danbury, and New Haven. Thus, in 1892 one historian of the county reported that "[a]griculture is the chief pursuit of the town, whose population has in consequence decreased, being attracted to manufacturing center" (Rockey 1892:774). In 1932, the town's industries were reported as "agriculture, and the manufacture of steel traps, organ springs, ant tacks" (Connecticut 1932).

The village nearest the Area of Potential Effect, South Britain, is approximately two and a half miles north and a little west. The water power available there – including the water power company mentioned above – led to the early establishment of grist mills and saw mills, as well as a series of early nineteenth-century factories such as textile mills and shops for making hats, shoes, and the like. By the 1890s, however, the village was reduced to some twenty-five houses, two churches, a store, and a few mechanics' shops (Rockey 1892). During the nineteenth century and perhaps earlier, a bridge across the Housatonic immediately west of the Area of Potential Effect caused a small cluster of houses and hotels, and a school to be built there, through which the Ousatonic Turnpike also passed. It is marked on the historic maps of 1852 and 1868 (Whiteford, Beers). The 1983 USGS map shows, however, that a major road had been built directly through what had been Bennett's Bridge (Figure 1). When Interstate 84 was built through the same location in the 1960s, it would have destroyed any remaining traces of this village, the name of which no longer appears on maps (Anderson 2006). This highway and the process of residential suburbanization that began in the 1940s and 1950s combine to explain the town's population growth during the postwar era, as is shown in Chart 1. Southbury is near enough to the urban centers of Danbury and Waterbury that this growth began early in this trend.

In the 1934 aerial photograph, a cluster of housing is visible west of the Area of Potential Effect, while to the east a wide expanse of farm fields is shown – although the Area of Potential Effect itself, being in a more rugged area, was forested (Figure 10). The 1983 USGS map shows additional, larger clusters of residences not far from the Area of Potential Effect: Lakeside, to the east, Oakdale Manor, west of where Bennett's Bridge once was, and several others across the Housatonic River (Figure 1). Relatively little change had occurred in this area by 1950, other than some abandonment of farmland to forest (Figure 11). In the 1970 aerial photograph, there was much less farmland, much more forest, and a noticeable amount of additional residential development, though not an extraordinary amount (Figure 12). The 1986 aerial photograph shows some continuation of this process (Figure 13). In the 2004 aerial photograph, a new large-lot housing development can be seen north of the Area of Potential Effect, while the rugged forest south of it

remains in place (Figure 14). This particular part of Southbury apparently did not see most of the town's earliest phases of growth. This may change, however. The 1990 population was just under 16,000, as Chart 1 shows, but as of 2005 it had risen to just over 19,000. Even more interestingly, according to a 2000 study of commuting behavior, there was a net inflow of commuters traveling to Southbury from surrounding towns, suggesting that its economy, and hence its attractiveness as a place of residence, was growing (CERC 2006).

#### **4.4 Previous Investigations**

As mentioned above, the current effort also involved an examination of Connecticut State Historic Preservation Office records as they pertain to archeological sites, historic standing structures, and National Register Properties situated within 0.8 km (0.5 mi) of the Areas of Potential Effect. In addition, the electronic site files maintained by Heritage Consultants, LLC also were examined during the course of this investigation. The results of this literature search revealed that no cultural resources investigations have been completed within the immediate vicinity of the proposed project parcel. In addition, no previously identified archaeological sites have been recorded within the immediate vicinity of the Areas of Potential Effect; however, as Figure 15 shows, Rochambeau's march route is located to the southwest of the proposed project parcel. This route was described briefly above in Section 4.0 and it corresponds only to the corridor through which Rochambeau's troops traveled. There is no evidence, either historical or archaeological, to indicate that either Rochambeau or his caravan camped in the vicinity of the Areas of Potential Effect or otherwise visited the area scheduled for impacts associated with the construction of the proposed cellular communications facility.

#### **5.0 Field Methods**

Following the completion of the background research, the Areas of Potential Effect were subjected to a Phase I cultural resources reconnaissance survey utilizing pedestrian survey, subsurface testing, mapping, and photo-documentation. The sampling strategy was designed to provide coverage of all portions of the Areas of Potential Effect, including the proposed lease area and associated access road. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the Areas of Potential Effect, as well as photo-documentation of the proposed project item and their immediate surroundings. The subsurface testing portion of this investigation involved the systematic excavation of shovel tests throughout the proposed lease area; shovel tests excavated in this area were positioned in the four corners of the lease area, as well as at the proposed monopole location. In addition, judgmental shovel testing was also conducted along the route of the proposed access road where possible (i.e., where areas of undisturbed low slopes were encountered). The entirety of the proposed access road was not subjected to subsurface examination because it consisted of an extremely compact and eroded surface punctuated by areas of considerable slope and areas that had been impacted previously by logging.

During survey, each shovel test measured 50 cm (19.7 in) in diameter and each was excavated to a depth of 50 cm (19.7 in) or until sterile subsoil, glacial till, or immovable objects (e.g., boulders) were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archeological recordation process.

#### **6.0 Curation**

Following the completion and acceptance of the Final Report of Investigations, all project drawings, maps, photographs, and field notes will be curated with Dr. Nicholas Bellantoni, Office of Connecticut State Archaeology, Box U-1023, University of Connecticut, Storrs, Connecticut 06269.

## **7.0 Results of the Investigation and Management Recommendations**

During survey, 10 of 10 (100 percent) planned shovel tests were excavated successfully throughout the Areas of Potential Effect associated with the proposed lease area and access road (Figure 2). A typical shovel test profile contained two strata and it extended to a depth of 50 cmbs (19.7 inbs). Stratum I, which extended from 0 to 20 cmbs (0 to 8 inbs), consisted of a layer of dark brown (10YR 3/3) loamy sand. Stratum II reached from 30 to 50 cmbs (8 to 19.7 inbs) and it was characterized as a deposit of yellowish brown (10YR 4/6) loamy sand mixed with gravel. No evidence of cultural features was identified within the excavated shovel tests, and no cultural material, either prehistoric or historic in origin, was recovered. Since no cultural material was identified during survey and no impacts to cultural resources are anticipated, no additional fieldwork is recommended.

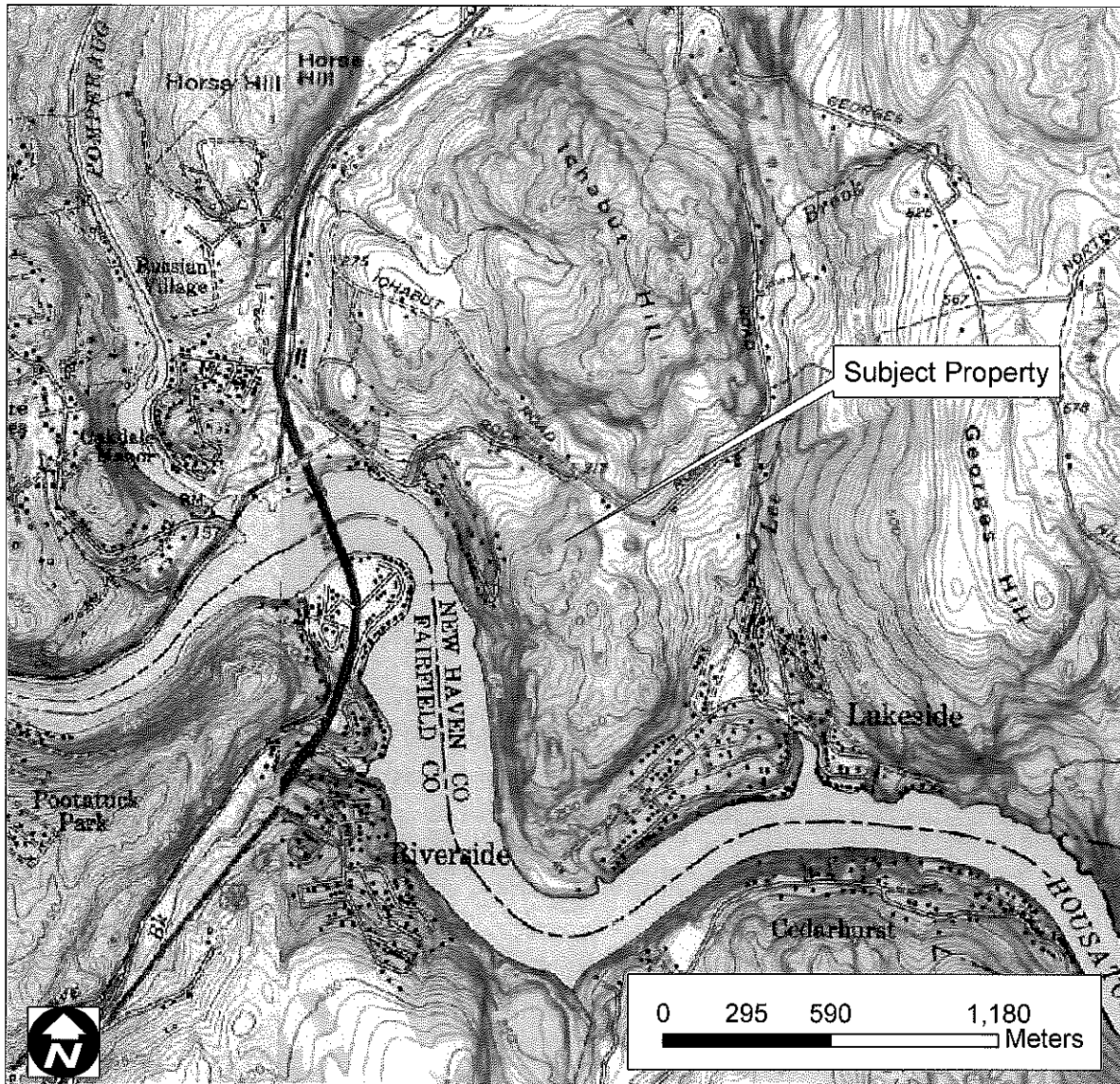


Figure 1. Excerpt from a 1983 USGS 7.5" topographic quadrangle map showing the location of the Area of Potential Effect in Southbury, Connecticut.

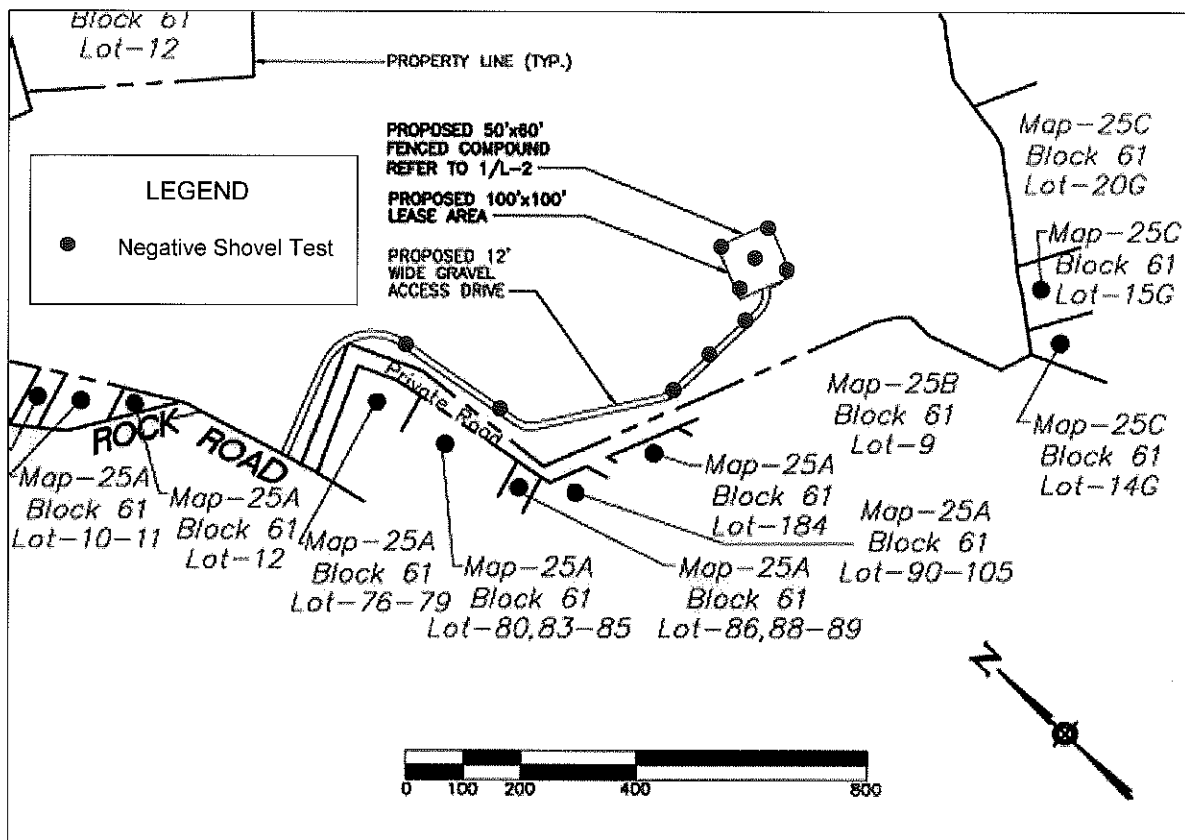


Figure 2. Plan view of the proposed cellular communication facility and the proposed access road.



**Figure 3.** Overview photo of the proposed lease area, facing west. Note the recent tree clearing efforts.



**Figure 4.** Overview photo of the proposed lease area, facing east.





**Figure 5.** Overview photo of the proposed access road, facing northwest.



**Figure 6.** Overview photo of the southern terminus of the proposed access road, facing northeast.



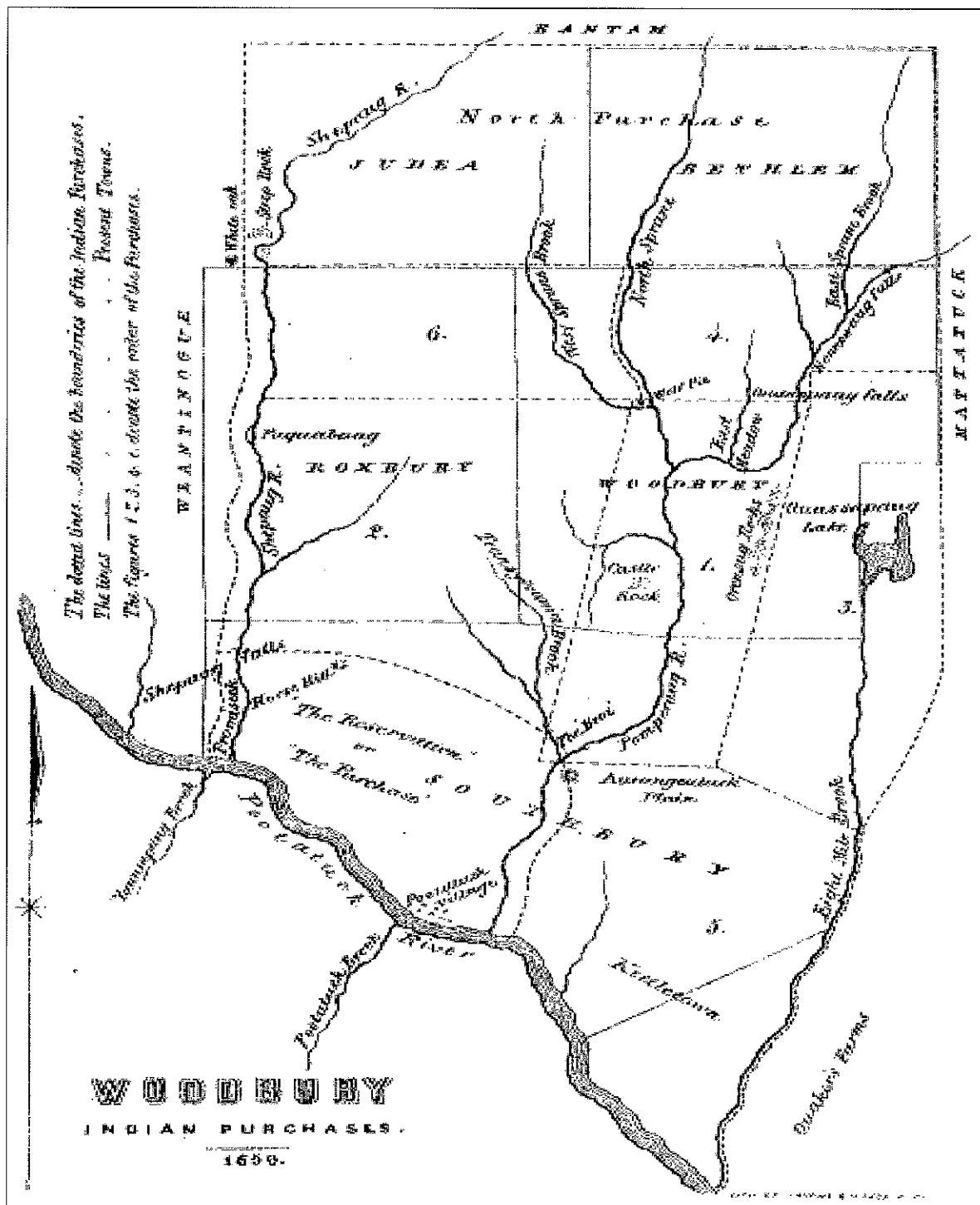


Figure 7. Excerpt from a historic map of seventeenth century Woodbury Indian Purchases; including the fifth purchase area (Kettletown), which encompasses the Area of Potential Effect.

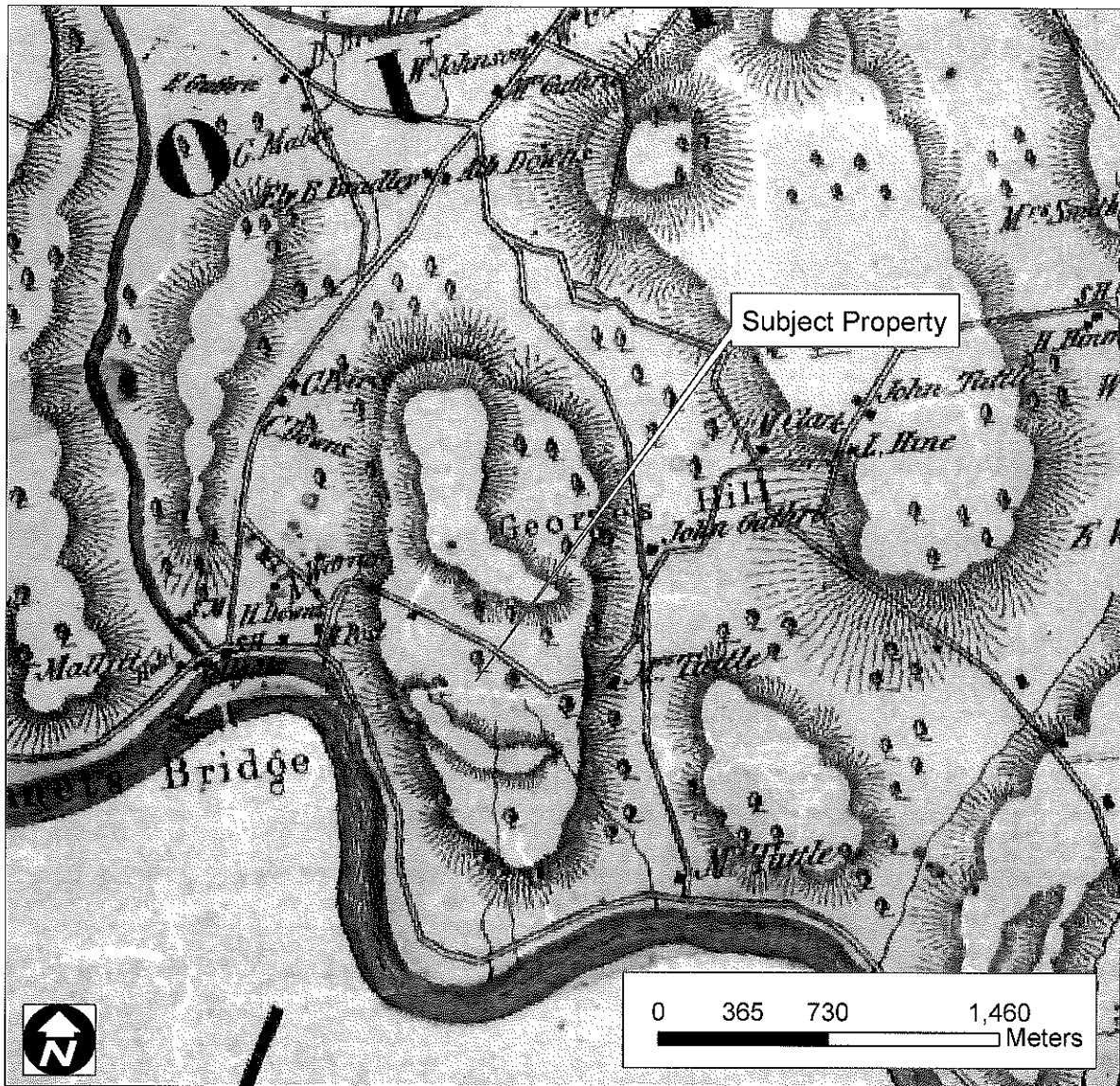


Figure 8. Excerpt from an 1852 historic map depicting the location of the Area of Potential Effect.



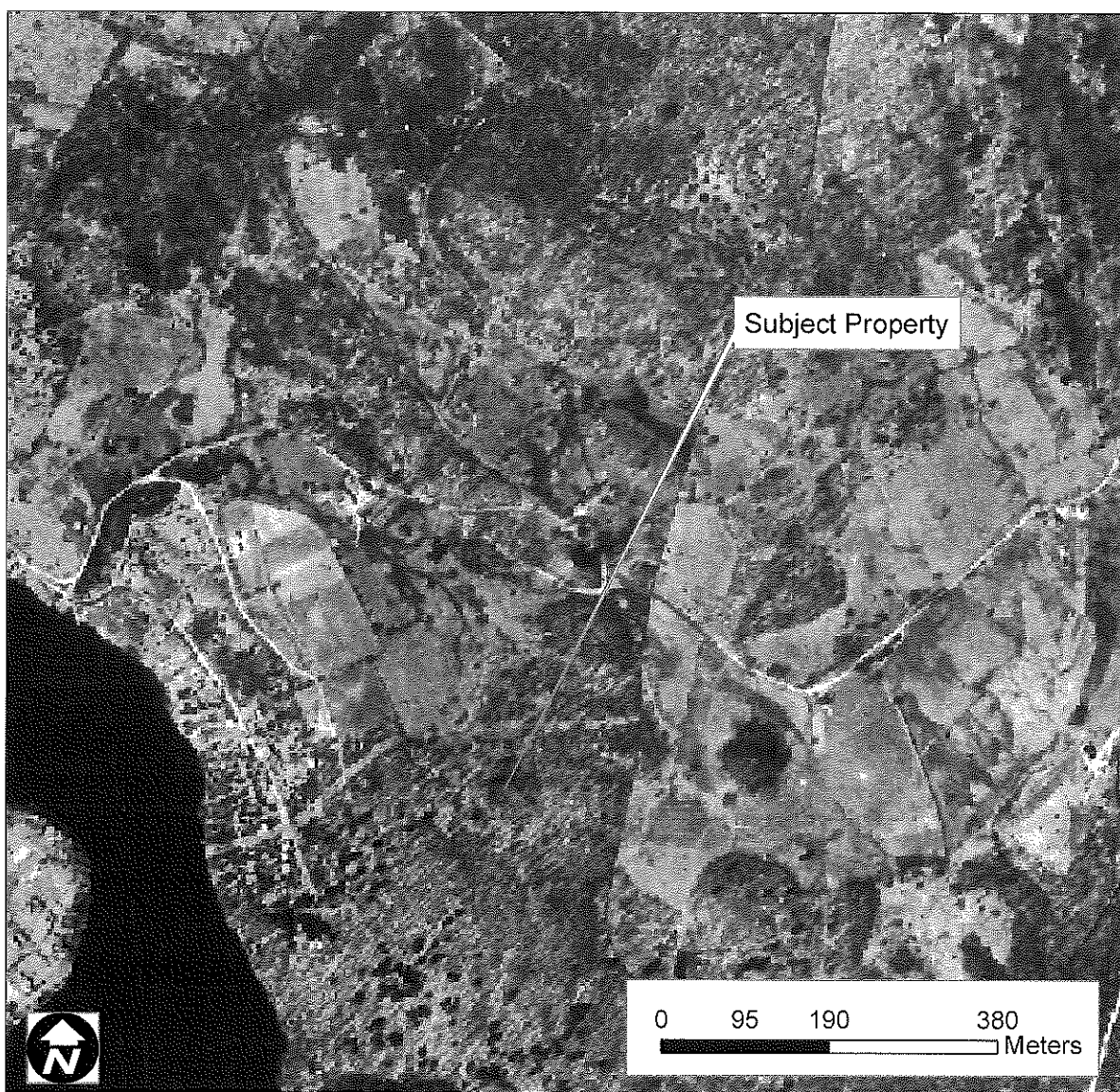
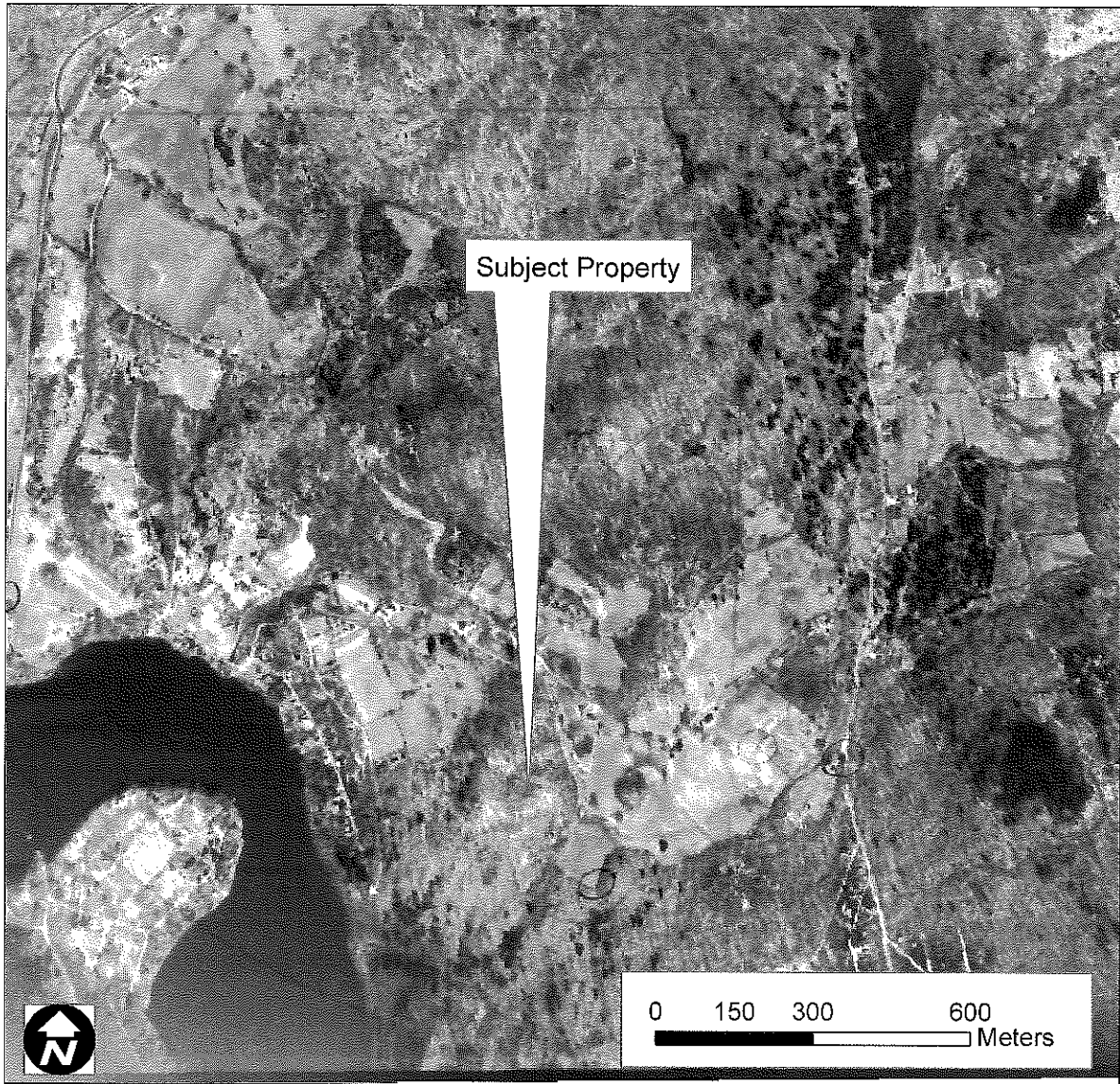
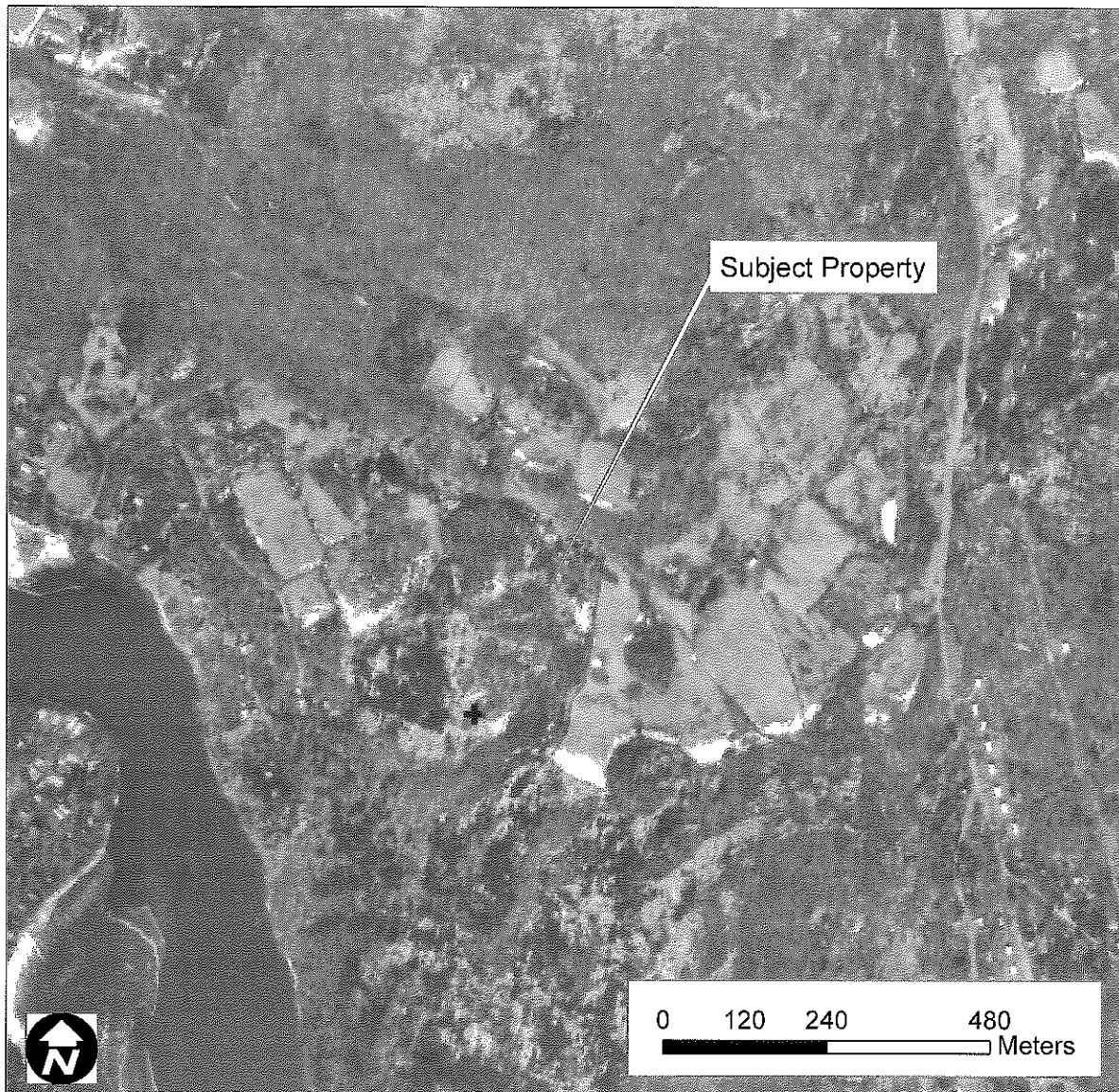


Figure 10. Excerpt from a 1934 aerial photograph depicting the location of the Area of Potential Effect.

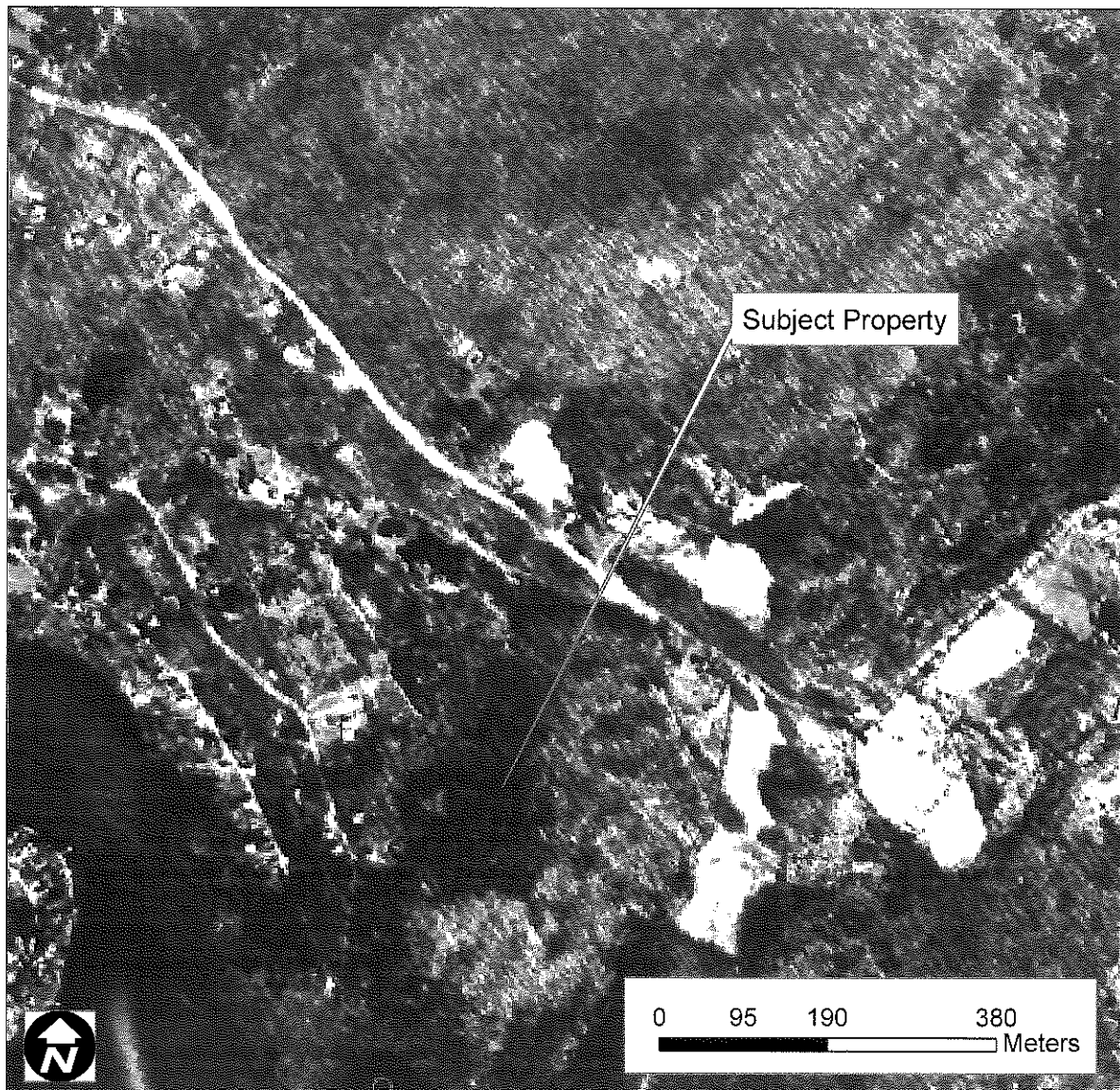




**Figure 11.** Excerpt from a 1950 aerial photograph depicting the location of the Area of Potential Effect.

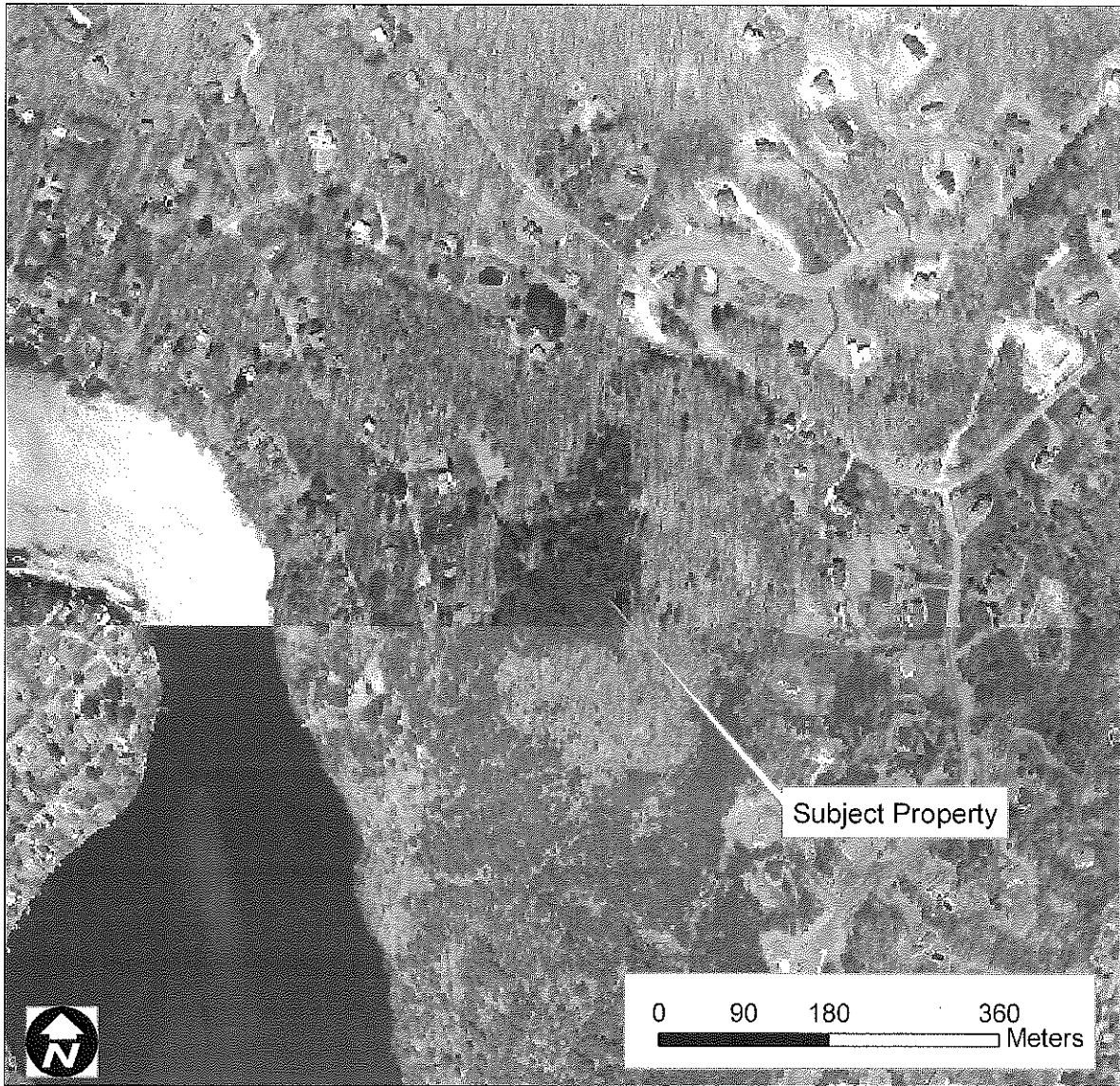


**Figure 12.** Excerpt from a 1970 aerial photograph depicting the location of the Area of Potential Effect.



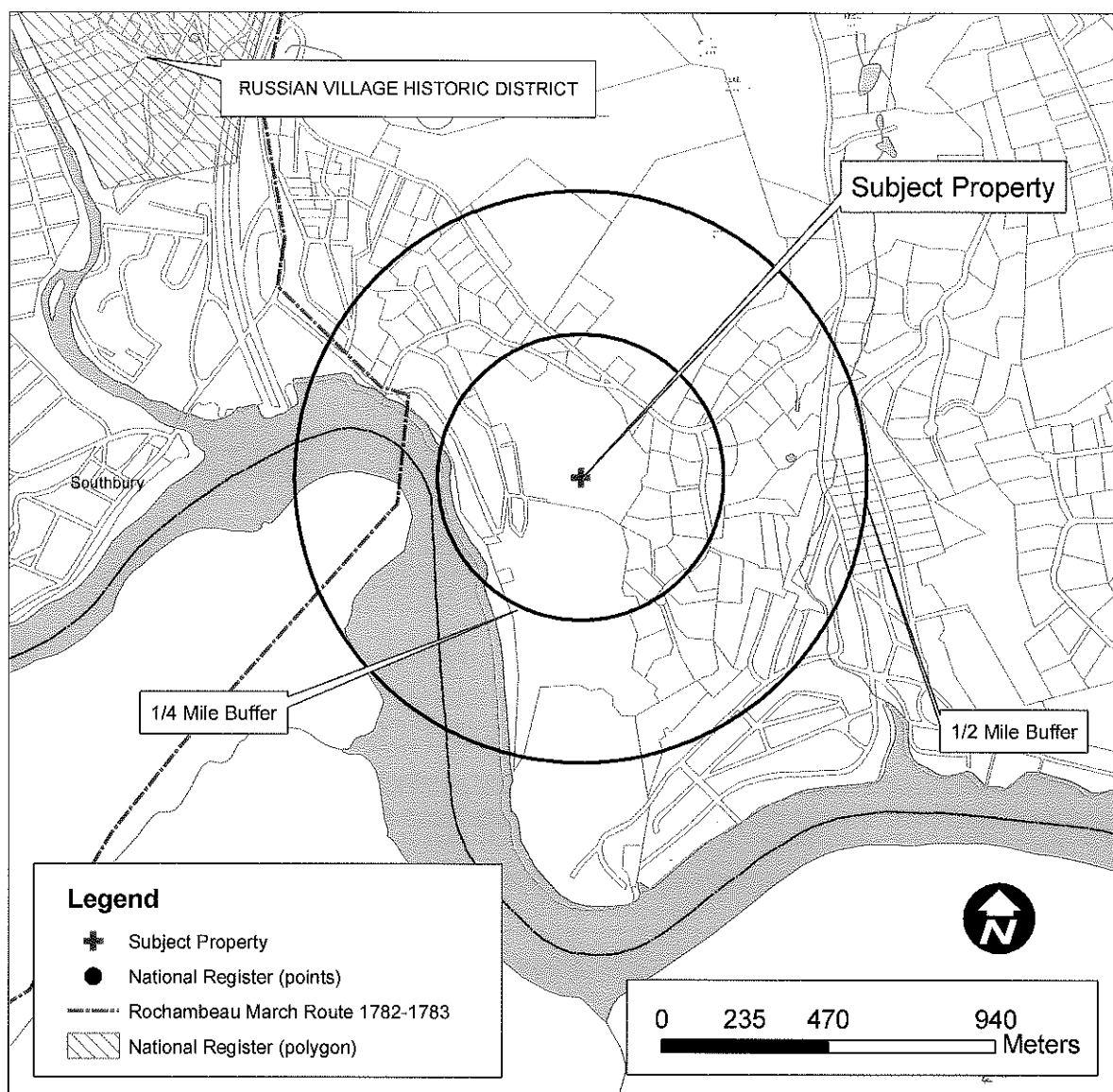
**Figure 13.** Excerpt from a 1986 aerial photograph depicting the location of the Area of Potential Effect.





**Figure 14.** Excerpt from a 2004 aerial photograph depicting the location of the Area of Potential Effect.





**Figure 15.** Digital map depicting the location of previously identified cultural resources within the vicinity of the Area of Potential Effect.

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